

BUS. ADM.
LIBRARY

JUN 30 1941

Accounting Reviews

**Accounting Principles Underlying Corporate Financial
Statements**

Tests of Income Realization

RUSSELL BOWERS

Accounting in the Graduate Program of the Social-Science Student

WILLARD C. BEATTY

A Genealogy for "Cost or Market"

A. C. LITTLETON

**Reflections of Twenty-five Years in the American
Accounting Association**

H. T. SCOVILL

Inventories: from Fetish to Creed

EDWARD A. KRACKE

What Is Proper Training for Accountants?

SIDNEY G. WINTER

Some Antecedents of the Securities and Exchange Commission

J. R. TAYLOR

Matching Costs with Revenues in the Flour-Milling Industry

ROBERT P. LOGIE

DEPENDABLE TEXTBOOKS

Are Essential in Teaching Modern Commerce Courses

CONSTRUCTIVE ACCOUNTING

In 33 clear, perfectly coordinated chapters, well supported by actual practice work, the student is taught to reason in solving his accounting problems. He learns the principles through analysis . . . and the application through practice sets, problems and theory work.

ADVANCED ACCOUNTING I

For first-year advanced students—30 lectures covering corporation, financial and operating statements, the extended use of working papers, partnership accounting and dissolution, corporation accounting with lectures on profits, surplus, and dividends, statement of affairs, realization and liquidation, funds, and reserves.

ADVANCED ACCOUNTING II AND AUDITING

Provides for second-year advanced students a thorough professional training in advanced practical accounting, covering a comprehensive treatment of mergers and consolidations, specialized subjects, installments, consignments, estate accounting, agency, branches, foreign exchange, graphic methods, etc. and auditing.

FEDERAL INCOME TAX ACCOUNTING

Revised to comply with the latest changes in the law. Issued in looseleaf forms to allow changes when new laws are enacted. Every point pertaining to the current Federal Revenue Act has been treated, making it an intensive course in income tax accounting.

COST ACCOUNTING

Treats in detail the principles and methods of factory cost accounting. The aim of the work is two-fold: To teach cost accounting principles and to train the student in their practical application. Attention is also given to those phases of industrial management necessary to the installation and operation of a modern cost system.

OTHER WALTON PUBLICATIONS

Mathematics of Accounting and Finance
Stock Brokerage Accounting
Examination Review Course
Municipal Accounting

Business Law Series
Elements of Business Law
Business Law Cases
Office Procedure and Practice

*We shall be glad to send to instructors, for
90 days examination, copies of Walton texts.*

WALTON PUBLISHING COMPANY

332 South Michigan Avenue, Chicago, Ill.

the Accounting Review

Vol. XVI

JUNE, 1941

No. 2

Accounting Principles Underlying Corporate Financial Statements.....	133
Tests of Income Realization.....	RUSSELL BOWERS 139
Accounting in the Graduate Program of the Social-Science Student.....	WILLARD C. BEATTY 155
A Genealogy for "Cost or Market".....	A. C. LITTLETON 161
Reflections of Twenty-five Years in the American Accounting Association.....	H. T. SCOVILL 167
Inventories: from Fetish to Creed.....	EDWARD A. KRACKE 175
What is Proper Training for Accountants?.....	SIDNEY G. WINTER 183
Some Antecedents of the Securities and Exchange Commission.....	J. R. TAYLOR 188
Matching Costs with Revenues in the Flour-Milling Industry.....	ROBERT P. LOGUE 196
The Accounting Exchange.....	207
Auditing the Contingent Liabilities of British Banks, by H. C. F. Holgate; A Note on Accounting Standards, by B. S. Yamey	
Professional Examinations—A Department for Students of Accounting.....	HENRY T. CHAMBERLAIN 213
Book Reviews.....	226
Alta G. Saunders and Chester R. Anderson, <i>Business Reports</i> , Second Edition; William H. Bell and Ralph S. Johns, <i>Auditing</i> , Revised Edition; Elizabeth A. Burnham, <i>Expenses and Profits of Limited Price Variety Chains in 1939</i> ; Frank P. Smith, <i>Management Trading, Stock-Market Prices and Profits</i> ; John F. Kenney, <i>Mathematics of Statistics</i> , Parts I and II; Charles H. Langer, <i>Accounting Principles and Procedure—Municipal Accounting</i> ; Solomon Fabricant, <i>The Output of Manufacturing Industries, 1899-1937</i> .	
University Notes.....	230

Editor: ERIC L. KOHLER. Assistant Editors: ARTHUR W. HANSON, and HARRY D. KERRIGAN

Published quarterly in March, June, September and December.

Entered as second class matter at the Post Office at Menasha, Wisconsin.

Manuscript and correspondence relating to editorial matters should be addressed to the Editor at Knoxville, Tennessee.

Advertising and advertising inquiries and subscription and business communications should be addressed to the Secretary-Treasurer, Robert L. Dixon, Jr., The School of Business, University of Chicago, Chicago, Illinois.

Subscription price: \$4 a year; \$1 a single copy; postage free.

Acceptance for mailing at the special rate of postage provided for in the Act of February 28, 1925, authorized February 12, 1932.

Copyright 1941, American Accounting Association

CONTRIBUTORS TO THE JUNE ISSUE

RUSSELL BOWERS (*Tests of Income Realization*) has taught accounting in the University of Toledo, Butler University, and the University of Michigan. He has attended Miami University, the University of Illinois, and has a Ph.D. degree from the University of Michigan. He is now teaching economics in Port Huron Junior College.

WILLARD C. BEATTY (*Accounting in the Graduate Program of the Social-Science Student*) is Associate Professor of Economics at Brown University.

A. C. LITTLETON (*A Genealogy for "Cost or Market"*) is Professor of Accounting at the University of Illinois and co-author of the Association's latest monograph.

H. T. SCOVILL (*Reflections of Twenty-five Years in the American Accounting Association*), a former president of the Association, is head of the Department of Business Organization and Operation at the University of Illinois.

EDWARD A. KRACKE (*Inventories: from Fetish to Creed*) is a member of the firm of Haskins & Sells. In 1938 and 1939 he served as one of the advisers of the

Treasury Department in connection with the revision of the inventories section of the Federal income-tax law.

SIDNEY G. WINTER (*What Is Proper Training for Accountants?*), professor of accounting at the University of Iowa and former president of the Association, headed a roundtable dealing with the same subject at the last annual meeting of the American Institute of Accountants.

J. R. TAYLOR (*Some Antecedents of the Securities and Exchange Commission*) is assistant professor of accounting at the University of Tennessee; he was formerly instructor of accounting at the University of Illinois.

H. C. F. HOLGATE (*Auditing the Contingent Liabilities of British Banks*), Ph.D., B.Sc.Econ., is a corporate accountant well known in England for his books and articles on accounting and banking topics.

B. S. YAMEY (*A Note on Accounting Standards*), is a lecturer in the Department of Commerce, Rhodes University College, Grahamstown, South Africa.

The Accounting Review

VOL. XVI

JUNE, 1941

No. 2

ACCOUNTING PRINCIPLES UNDERLYING CORPORATE FINANCIAL STATEMENTS

PREFATORY NOTE

FIVE YEARS AGO this month the Executive Committee of the American Accounting Association published in THE ACCOUNTING REVIEW a statement of "tentative principles" relating to the financial reports of corporation. Since then numerous criticisms of this effort have appeared and other groups have given serious attention to the formulation of accounting principles. The present Executive Committee of the Association believes that these efforts justify faith in the continued orderly development of accounting principles and in the ability of accountants to guide this development in accordance with their own high sense of social responsibility.

It should not be expected that any statement of principles can constitute the final word on the subject or that it can satisfy all accountants. Indeed, the Committee believes that basic accounting concepts should be given continuous study, to the end that the needs of those concerned with corporate reports, whether as managers, investors, members of regulatory bodies, or the general public, may be best served. It may be that these basic concepts will undergo less modification than changing current conditions seem to warrant, and certainly less than the language used in describing them. In any event, periodic restatements, and the discussions preceding and following them, can have only salutary effects.

In this restatement fundamental prop-

ositions concerning the functions of accounting in respect to cost, revenue realization, income, and capital are set forth briefly. These are followed by explanations and applications the list of which could be considerably expanded. The primary effort has been to bring out those points which are of the broadest significance or which have been the object of recent attention.

In the corporate field the most important use of accounting lies in the preparation of statements of financial position and of operating results. So many vital decisions of business and government depend on the interpretation of such statements that they have come to be of prime economic and social significance.

The subject may be approached by considering the uncertainties of corporate accounting practice which sometimes vitiate comparisons of published financial statements of different corporate enterprises, and even comparisons of the financial statements of the same enterprise for successive years. In some instances business managements and accountants have permitted themselves such freedom of action that published statements have been difficult of interpretation without extensive supplemental information.

To avoid these difficulties every corporate statement should be based on accounting principles which are sufficiently uniform, objective, and well understood to justify opinions as to the condition and progress of the business enterprise behind

it. No one on casual inspection of financial statements can arrive at a thorough understanding of a corporation's affairs; but it should be possible for a person moderately experienced in business and finance to examine such statements with the expectation of deriving from them basic financial facts on which judgments may be premised.

Business enterprises so differ in nature that in the application of principles to any one organization some allowance must be made for its individual characteristics and for those of the industry. It should nevertheless be possible to agree upon standards of adequacy and reasonableness in the presentation of corporate financial statements which will eliminate variations in accounting procedure resulting not from the peculiarities of individual enterprises, but rather from the lack of acceptance of well-conceived, common standards.

The principles advocated here and their suggested applications represent levels of accounting practice departures from which should be viewed with concern. They do not by any means cover all the points at which difficulties are experienced, but they constitute a foundation on which more detailed and not inconsistent standards for a particular industry or enterprise can be built.

Differences in business enterprises and in management needs are nowhere better illustrated than in the varied forms of internal reporting, but whatever additional records and reports are required should not obscure the necessity of furnishing the stockholder, the creditor, and the general public with financial statements which adhere as far as possible to standards objectively determined.

THE BASIC ASSUMPTION

The purpose of periodic financial statements of a corporation is to furnish information that is necessary for the formulation

of dependable judgments. A knowledge of the origin and expiration of the economic resources of a company and the resultant changes in the interests of its creditors and investors is essential to this purpose, and these facts should be expressed in such a manner as to make the financial statements both intelligible and, as far as possible, comparable with statements of other periods and of other corporations. The reader of a statement should be able to assume that, in the absence of clear indications to the contrary, certain basic principles or standards have been followed. To achieve this end a unified and coordinated body of accounting theory is required.

A. COST

Factors of production and other resources of an enterprise are measured at the date of acquisition by costs incurred or amounts invested, on a cash or cash-equivalent basis, and at later dates by the balances of costs incurred or amounts invested after taking into account the effects of operation and other subsequent events. Similarly the rights of creditors and stockholders are measured initially by amounts contributed, on a cash or cash-equivalent basis, and subsequently reflect the cumulative results of operations, distributions, and other corporate activities.

1. Cost incurred is measured by cash outlay or by the fair market value of considerations other than cash. Where productive factors or other resources are acquired by donation or some similar process fair market value at the date of acquisition, carefully determined in the light of all available evidence, becomes the basic measure.

2. Costs incurred should be appropriately classified to facilitate tracing and absorption in terms of operating activity and accounting periods; for example, a primary basis of classifying fixed assets is that which separates depreciable from nondepreciable property. The total cost of

the several classes of assets acquired by a lump-sum payment should be distributed after careful consideration of the nature and condition of each unit of property, intended use and prospective earning power, and other pertinent data.

3. For each accounting period there must be a determination of the amount of cost which has been absorbed in producing revenue or has otherwise expired, and also the amount of cost which is reasonably applicable to future operations. Diminutions or partial expirations of cost not subject to precise measurement must be determined largely upon the basis of business experience and expert opinion rather than by rigid formula. In each industry and in each enterprise reasonably consistent policies and procedures need to be developed. In the case of depreciable or amortizable resources the minimum requirement is that the cost of each asset be spread as uniformly as possible over its productive life.

4. Costs of productive factors or other resources which are no longer useful should be reduced to realizable value, if any; and in the case of resources to be continued in use or held for sale only such portion of their costs as may reasonably be assigned to future periods should be carried in the balance sheet.

5. The excess of the face or maturity amount of a liability over the cash or cash equivalent supplied by the creditor represents a form of interest payable at maturity; on a balance sheet the unaccrued portion of such interest should preferably appear as an offset to the maturity amount of the indebtedness. Conversely, the excess of the cash or cash equivalent supplied by the creditor over the maturity amount represents a liability payable from period to period as a part of nominal interest payments; on a balance sheet any unpaid portion of such liability should appear as an addition to the maturity amount of the indebtedness.

6. When a liability is retired, either at maturity or earlier, all related items should be eliminated from the balance sheet, including unpaid premium or unabsorbed discount and expense. Expenses incurred in retiring the obligation and any redemption premium, not including the cost of issuing new securities, should be absorbed in the period of retirement.

7. Values other than costs applicable to future periods should be treated in balance sheets as supplementary data, and then only when supported by substantial evidence. Such data should be adequately described and shown parenthetically, by footnote, or in separate schedules, to avoid obscuring the basic cost figures.

8. In the case of resources received in exchange for product or other assets, the selling price of the product or other assets, expressed in realizable cash terms, becomes the cost of such resources received for subsequent accounting purposes.

Comments:

The cost principle stated above, together with the examples of its application, is sufficiently definite to provide a common basis for statement procedure. It should be applied with enough flexibility to meet business and financial needs under all ordinary circumstances. A marked change in the value of money might impair the usefulness of cost records; however, such changes in price levels as have occurred in this country during the last half century have afforded insufficient reason for the adjustment of asset values.

The adoption of the cost principle eliminates the heterogeneous results of accounting practices which have permitted periodic revaluation of assets, up or down, in accordance with current price levels and temporary business developments. The history of cost and cost amortization constitutes an essential starting point in financial interpretation.

B. REVENUE

Revenue is measured by the realizable value, on a cash or equivalent basis, of the product of the enterprise, either goods or services. Revenue may be said to accrue, in a broad sense, as the process of production advances, but revenue is generally recognizable in the accounts only as validated by delivery of goods or services to customers, with concurrent acquisition of cash or cash equivalent.

1. Where the immediate consideration received from the customer is in a form other than cash the amount of revenue realized and recognizable is restricted to the cash value of the consideration. Where revenues are recognized in terms of accounts receivable periodic adjustments must be made for estimated returns, uncollectibles, and other offsets.

2. As a rule the recognition of revenue must await the transfer of legal title to the customer. In the construction industries, however, and in other special cases, the accounting for periodic revenue may properly begin with the billing of the customer as work in progress is approved, in conformity with the terms of the contract; or some other reasonable modification of the usual rule may be employed.

3. In the case of interest, rent, royalties and related forms of contractual revenues recognition on a strict accrual basis, in accordance with the conditions of the contract, is preferred practice.

4. Where the collection of the selling price of the product is spread over an extended period, or circumstances render collection in full highly uncertain, or substantial costs are incurred after the point of sale or delivery, the measurement of revenue strictly in terms of cash received for product furnished may be justified.

5. Discovery value, timber growth, and other forms of accretion are generally not to be recognized as realized revenue.

6. Appreciation or enhancement of existing units of property resulting from changing prices on the market does not represent realized revenue.

7. Revenue may be realized through the sale of resources not to be classed as product.

Comments:

Occurrences which make possible the recognition and measurement of revenue vary with the character of business transactions. The most widely recognized occurrence is the act of delivering to customers the products or services of a business. In some instances, such as performance under long-term contracts, revenue may be recognizable before delivery or transfer of title. Other events may be satisfactorily recognized in certain industries, provided two conditions are met: the existence of an objectively determined basis of recognition and measurement, and consistency in practice from period to period.

C. INCOME

Income is measured by matching revenues realized against costs consumed or expired, in accordance with the cost principle. All such revenues and costs should be reflected in the income statement. Only in this manner can the income statements of a corporation express completely its entire income history for a period of years. For any one year the income statement should reflect all realized revenues, and all costs and losses written off during that year, whether or not they have resulted from ordinary operations.

1. The income statement for any given period should be divided into such sections as may be required to show not only particulars of revenues from and the expenses of the operations of the current period, measured as accurately as may be at the time, but also profits and losses from revenue realization and cost amortization not

ordinarily associated with the operations of the current period.

2. The current-operations section of the income statement should disclose revenues realized and operating costs, including applicable depreciation and other amortization of assets. This section should be subdivided or departmentalized to show the sources and results of each major income-producing activity and to furnish information helpful in the determination of trends in revenues and expenses.

3. Other sections of the income statement should list in reasonable detail interest on borrowed money, adjusted for debt discount and premium; so-called capital gains and losses; extraordinary charges and credits to income, including substantial adjustments which may not be attributable to the ordinary operations of the current year; gain or loss from the discharge of liabilities at less or more than their recorded amount; and income and profits taxes.

4. Income should not be distorted or artificially stabilized by creating arbitrary reserves either by appropriating income or surplus or by overstating expenses in certain periods and subsequently charging to such reserves expenses and losses pertaining to succeeding periods. Earned surplus reserved for contingencies or for similar purposes does not lose its character as earned surplus; expenses or losses arising from contingencies thus anticipated should be reflected not as reductions of the reserve but in the income statement of the period in which they are recognized.

5. Corporate income is not affected by the issuance, purchase, or retirement of the corporation's own stock, from adjustments of capital-stock accounts, or from dividend distributions made by the corporation.

Comments:

The objective of the income principle is

to develop a series of income statements which, for the life history of the corporation, will include all gains and losses. To this end the income statement for each fiscal period should show not only the items affecting current results, but also any adjustments for gains or losses which may not be regarded as strictly applicable to the operations of the current period but which have nevertheless been first recognized in the accounts during the period. If net income is to have any meaning the factors influencing it must be isolated and given a distinct and unified expression. This is possible if all gains and losses are carried through a single medium to earned surplus. It is impossible if expense charges, losses, or income credits may be carried directly to surplus or to surplus reserve. This comment does not apply to operating reserves created by means of carefully determined charges to current operating expenses.

In view of the emphasis given to computations of earnings per share, and to other measures of corporate performance, a common yardstick is needed. The fact that it may not be possible to measure precisely at the end of any year all costs which have been acquired or dissipated during that year makes it essential to encompass within a single statement, not only the best possible measure of income from ordinary operations, but also gains and losses from events not always associated with the transactions of a single year.

D. CAPITAL

Corporate capital, the equity of stockholders of all classes in the enterprise, consists of two major divisions—capital paid in by present and past stockholders, and earned surplus—which must be segregated and clearly differentiated on the balance sheet. No transfers may be made from the former to the latter either directly or in-

directly. Where corporate laws permit the payment of dividends from paid-in capital, the extent to which paid-in capital is available for that purpose should be indicated on financial statements.

1. Paid-in capital is initially measured by amounts received for shares issued, whether recorded on the books as capital stock or paid-in surplus. It may be increased by credits from the reissue of shares reacquired, and transfers from earned surplus to capital-stock account by means of stock dividends, recapitalizations, or otherwise. It may also include amounts contributed by persons other than stockholders. Reductions of paid-in capital may be caused by the redemption or other reacquisition of outstanding shares, payments of liquidating dividends, and the absorption of a deficit.

2. Earned surplus should be credited or charged only with the following: the balance of periodic net income; distributions to stockholders, including amounts credited to paid-in capital upon the issuance of stock dividends; amounts transferred to and from earned-surplus reserves; and losses recognized in recapitalizations. Earned surplus should include no credits from transactions in the company's own stock or transfers from paid-in capital accounts.

3. Reserves set aside to indicate the manner in which profits have been invested or to reflect contingencies are subdivisions of earned surplus and should not be used for the absorption of expenses or losses, or for the writedown of tangible or intangible assets. Charges for all cost amortization and asset values expired should be by way of the income account.

4. A reduction of the par or stated value of capital stock for the purpose of absorbing a deficit should be approved by stockholders, and earned surplus thereafter should be so labeled as to indicate that it

dates from the time the deficit was eliminated.

5. Periodic reports should contain analyses of changes in paid-in capital and earned surplus, including sales, purchases, conversions, and exchanges of capital stock, stock dividends, and transactions affecting earned-surplus reserves.

6. Paid-in surplus created by a reduction in the stated value of preferred stock without a corresponding reduction in its liquidation preference should be appropriately designated and shown in conjunction with the reduced stated value of the preferred stock. In all cases the preference upon liquidation should be disclosed.

7. The outlay for reacquired shares of capital stock, provided the shares are reissuable, should be shown on the balance sheet as an unallocated reduction of capital stock and surplus, and any consequent restriction on surplus distributions should be disclosed. If the shares are not reissuable, or if they acquire the status of unissued or retired shares, such outlay should be charged to capital-stock account up to the amount by which capital stock has been formally reduced; the balance remaining should be charged to paid-in surplus, if any, up to an amount not in excess of the prorata portion of the paid-in surplus applicable to that class of shares; any part of the outlay which cannot thus be absorbed should be charged to earned surplus as constituting a distribution thereof. In case shares are retired at a figure less than their par or stated values, the resulting credit should be made to paid-in surplus. The excess of the reissue price of reacquired shares over their cost is paid-in capital; an excess of cost over the reissue price is in effect a distribution to a retiring stockholder and hence is chargeable to earned surplus.

Comments:

The application of the capital principle

is handicapped in some degree by conflicting provisions of corporation laws. It is not necessary, however, to adopt in accounting practice the interpretations and expedients found in various corporation acts. The principle suggested above represents at most some restriction on procedures which may have been legalized but which are not in accord with commonly accepted accounting methods.

The objective in these applications is to make an effective distinction between contributed capital and capital accumulated as a result of earnings. Attainment of this objective requires that no portion of any stockholder's contribution be credited to earned surplus, although the retirement

of a stockholder's equity may involve a distribution of earned surplus if the amount paid exceeds his prorata portion of paid-in capital.

When capital has been contributed to a corporation for permanent use, or has been dedicated to that use through the issue of a stock dividend, it should not be used later to increase earned surplus, either through absorption of losses or write-offs, or through direct credit. The only exception occurs when a deficit in earned surplus is eliminated through a restatement of capital equities approved by stockholders; and in such cases future statements of earned surplus should designate the point of time from which the new surplus dates.

TESTS OF INCOME REALIZATION

RUSSELL BOWERS

THE distinction between realized and unrealized income is a familiar one to accountants. The distinction in fact is such a vital one that income which is not realized is not generally considered to be income at all. At the present time the problem of income is more in the foreground of the accountant's horizon than ever before. In view of the immediate significance of income it seems strange that such a crucial question as the test of realization should so generally have escaped critical discussion. The test of realization most generally applied is that of sale. This is a convenient test which is readily understood in the great majority of cases by most people concerned. However in view of the great importance attached to the test and of the absurdities which it causes in a few cases, a study of the sale as the dominant criterion for income realization should prove fruitful. While the sale is a convenient rule-of-thumb test, in some ways it repre-

sents a rather low stage of development of a streamlined concept of income.

In the formulation of an adequate income concept two important conditioning viewpoints must be kept in mind. One is the economic or business viewpoint; the other is the legal. In 1876 a Federal district court said (*U. S. v. Schillinger*, 27 Fed. 973):

In the absence of any special provision of the law to the contrary, income must be taken to mean money, and not the expectation of receiving it, or the right to receive it at a future time.

In 1917 the United States Supreme Court said (*Maryland Casualty Co. v. U. S.*, 251 U. S. 342):

The word 'income' as used in revenue legislation has a settled legal meaning. The courts have uniformly construed it to include only the receipt of actual cash as opposed to contemplated revenue due but unpaid, unless a contrary purpose is manifest from the language of the statute.

Literally interpreted this means a pre-

sumption that income is synonymous with the receipt of money and thus there is no basis for a distinction between income and the receipt of money. But with the advent of the income tax in 1913 this obvious absurdity was more or less overlooked. From the beginning the tax administrators attempted to allow for the preservation of any capital investment by way of discretionary expense deductions from gross receipts. Down to the present time the basis for any deductions from gross exists only by way of legislative grace.¹ A constitutional amendment was needed to legalize taxation in proportion to a man's cash receipts, but a distinction between gross and net income has not been so important from the legal standpoint.

The Federal courts have left to Congress the question of expenses and other deductions, but not so the realization of gross income. An assumption was made from the beginning that any gain must be realized in order for it to count as income. So long as it was possible to use a narrowly conceived cash-receipts basis of reporting income the realization test offered no special legal difficulty. Realization was simply the receipt of cash from labor or capital or perhaps from any other source. Almost immediately upon the adoption of the Federal income tax immediate practical as well as theoretical considerations caused a shift of emphasis from the cash-receipts to the sale criterion. Even if the sale test has limitations, it has been more acceptable generally than the cash-receipts test. But since this depends upon the circumstances of the case, both criteria have been extensively used and in the case of taxes the taxpayer has been permitted to choose his method. The sale criterion adds complications to the income-determining process.

¹ *Burnet v. Thompson Oil and Gas Co.*, 283 U. S. 301; *Doyle v. Mitchell*, 247 U. S. 179; *Stratton's independence, Ltd. v. Howbart*, 231 U. S. 399; Magill, Roswell, *Taxable Income*, p. 316.

It is not from the accounting standpoint the agreement to sell, but rather the receipt of appropriate consideration that is the test of realization. In the main there is simply the substitution of an account receivable or right to receive cash in place of the immediate receipt of cash itself. This receivable is an asset usually current and is readily measured in cash terms. The possibility of manipulating and arbitrarily altering the income showing by the acquisition of property the vale of which cannot directly be measured by the yardstick of value, cash, has caused many a controversy. In all such cases the courts have insisted upon some kind of realization criterion, but the legal criterion has never been entirely clear.

At first the legal test was the receipt of cash, but from the beginning the courts permitted an accrual accounting usually discretionary with Congress and its administrative agents. In applying the first income-tax statute passed under the constitutional amendment the Treasury Department took the position that "returnable and taxable income is that actually realized during the year, evidenced by the receipt of cash or its equivalent (T. D. 2005). The test of sale in 1914 was applied as follows (T. D. 2090):

... Where there is an actual sale and transfer, profit will be considered realized even though payment is to be made in installments, as notes for deferred payments are secured by the title to the property, and presumably bear interest and are held to be worth, in cash, their face value.

Beginning with the Revenue Act of 1917 the various Congressional acts have indicated that statutory income need not be received in cash. In 1919 Treasury Department formulated the policy previously in use thus (T. D. 2873):

... in any case in which it is necessary to use an inventory, no accounting in regard to purchases and sales will clearly reflect income except an accrual method.

But it was also added that

... appreciation in value of property is not even an accrual of income to a taxpayer prior to the realization of such appreciation through conversion of the property.

This policy has been repeated in the various issues of the Treasury's regulations ever since. In 1933 the Supreme Court approved the accrual method (*Spring City Foundry Co. v. Commissioner*, 292 U. S. 184-5) in the following terms:

Keeping accounts and making returns on the accrual basis, as distinguished from the cash basis, import that it is the *right* to receive and not the actual receipt that determines the inclusion of the amount in gross income. When the right to receive an amount becomes fixed, the right accrues. When a merchandising concern makes sales, its inventory is reduced and a claim for the purchase price arises.

The Supreme Court denied the status of income to "gains" based upon mere appraisal (256 U. S. at 393-4):

There is a logical incongruity in entering upon the books of a corporation as the capital value of property acquired for permanent employment in its business and still retained for that purpose, a sum corresponding not to its cost, but to what probably might be realized by sale in the market. It is not merely that the market value has not been realized or tested by sale made, but that sale cannot be made without abandoning the very purpose for which the property is held, involving a withdrawal from business so far as that particular property is concerned.

While the earlier decisions emphasized actual cash receipt, the shift from cash to an accrual basis is emphasized by a decision of the Supreme Court in 1937. In a case which involved the tax on income reported by a cash rather than an accrual method the court said (*Helvering v. Midland*, 300 U. S. 219): "A receipt of interest is taxable as income whether paid in cash or by credit." In the famous *Eisner v. Macomber* or *Stock Dividend* case (252 U. S. 214) the Supreme Court insisted upon a conversion test of realization.

... enrichment through increase in value of capital investment is not income in any proper meaning of the term. ... we regard the market prices of the securities as an unsafe criterion in the inquiry such as the present, when the question must be, not what will the thing sell for, but what is it in truth and in essence.

A satisfactory treatment of the severance criterion used by the court in this case would be sufficiently long to require special treatment. It can therefore only be mentioned at this point.

Another landmark in the legal criteria of realization is the *Doerschuck* case in 1921 (274 F. 739). In this decision the receipt of debenture bonds was held to be the equivalent of a receipt of cash.

The most outstanding recent decision by the Supreme Court concerning a realization test is the *Koshland* case of 1936 (298 U. S. 441). This decision seems to have been misunderstood by many practitioners and textbook writers. The court did not hold, as is often supposed, that a stock dividend in the same class of stock is not income. The earlier *Macomber* decision had merely denied that the receipt of common stock constituted effective realization if received as a dividend on common stock, that is, if it were merely capitalized surplus which was already a common stock equity. Thus the logic of the *Koshland* case could be straightforward. The *Macomber* case had left sufficient logical ground for deciding that a dividend paid on a preferred equity in stock of any degree of preference satisfies the realization test. This would mean, quite consistent with the *Macomber* decision, that any additional interest acquired by the recipient is realized income provided only that the interest is an effective addition. The conclusion that the addition must be in the form of a different class of stock than that already held by the recipient does not follow from either the *Macomber* or the *Koshland* decision. It has been generally conceded that a bond-

holder may receive income from his investment in the form of another bond (Doerschuck, 274 F. 739), and similarly there need be no barrier to the recognition of income to a preferred stockholder if received in preferred stock or any other equity. This would give him an interest essentially different from that which he previously had. The rule thus can be that a dividend on a preferred equity received in any form is effectively realized. The first satisfactory analysis of this situation called to the writer's attention is one of recent appearance in *THE ACCOUNTING REVIEW*.²

The economic-power theory of income is not carefully followed in determining an income-tax base. The possibility of a wider practical application of this theory has not been carefully considered. In fact this theory is considered to be somewhat antithetical in its legal application to the current accounting concept of realized income. This notion has been clearly formulated by at least one legal scholar:

The necessity for realization as an element in the constitutional theory of income, therefore, negatives any notion that income is limited to changes in a person's economic power accruing within the time period in which the law requires it to be reported.³

A more carefully considered economic-power theory and a more critically formulated theory of realization will show that the two apparently different concepts of income are actually not so diverse as is often supposed.

The accountant in contrast to the economic theorist is peculiarly concerned with the measurement of income. Since the economist's interest in the problem is usually more general than the accountant's, the latter is frequently relied upon to apply the measuring rod in concrete situations.

In speaking of the economic-power concept of income as an accrual, seldom is there any thought given to the question: Precisely how is any possible accretion to be measured with the required objectivity? Does not most of the diversity between the economic-power theory and that applied by the accountant or business man lie chiefly in the question of scientific measurement? Further if one is not prepared to say precisely how much income accrues is it not presumptuous to assume that any increment exists?

If the economic-power theory has any conceptual superiority the possibility of applying new measuring devices should be studied more carefully. In the remainder of this article it will be assumed that the efficacy of any realization criterion lies in two essential attributes, first, measurability, and second, availability.

Accounting income must be identified with discrete events. The possible events with which the recognition of income may be identified vary usually in time from the initial activity of acquiring agents of production to the final act of closing the productive process in its broadest sense. That is, it begins with the purchase or commitment for productive agents; it ends with the collection of cash without liability or contingency attached. This series of events may be itemized as follows:

- (1) Purchase of material agents or services.
- (2) Receipt of orders for a good or service.
- (3) Physical production.
- (4) Delivery of good or service to the buyer.
- (5) Transfer of legal title.
- (6) Receipt of cash or the equivalent.
- (7) Termination of guaranty or similar contingency.

PURCHASE OF PRODUCTIVE AGENTS

Income cannot be recognized upon the acquisition of productive agents. This may

² York, Thomas, "Stock and Other Dividends as Income," *THE ACCOUNTING REVIEW*, September 1940, p. 383.

³ Rottschaefer, Henry, "The Concept of Income in Federal Taxation," 13 *Minn. Law Rev.* 646 (1929).

be heresy to the classical economist, for he knows there is such a thing as ownership utility. The value of productive agents acquired is enhanced upon transfer to the enterprise which can utilize these agents more effectively. However the accountant's objection is a weighty one. Of course the buyer makes a shrewd bargain. He normally may be presumed to do so. It has been contended at least since the time of Adam Smith that both parties to a business transaction profit by the exchange. But there are three possible values which the buyer might attach to the thing purchased. He may (1) use the basis of the thing surrendered in the exchange, (2) the cash or equivalent value of the thing received, or (3) the sum he would be willing to pay as a maximum.

The first of these is a logical absurdity. If the original basis of the thing surrendered is used to value the new thing acquired, the process of exchange would have to be viewed as an infinitely regressive series of exchanges with no possibility of explaining the original basis. In the case of pure barter it is impossible to distinguish between a purchase and a sale. However if somewhere in the series cash is exchanged, the basis is subjected to measurement and a basis is established.

The second method of valuing the commodity, the exchange for cash, subjects the thing acquired to direct comparison with the conventional yardstick, cash, used as a medium of exchange.

The third method of valuation ordinarily would give rise to income. It must be cast aside, however, on the ground of impossibility of objective measurement. To value the thing acquired at the sum the buyer would give rather than to be deprived of the agent is based on either of two assumptions. Either there is a reliable objectively determined price which differs from the price actually paid and which is clearly applicable to the agent acquired, or

the subjective judgment of the purchaser must be relied upon. The feasibility of both these alternatives must be denied. The former implies a perfect market and thereby is self-contradictory. The only reasonable explanation of a discrepancy between a price or value different from the price actually paid lies in the difference between the price of the agent acquired and the price of an allegedly similar article for which a different price is applicable. Perfect substitution may be *assumed* but it cannot be proved.

It is to be presumed generally that no purchase would even be made if the agent acquired were not valued more highly by the purchaser than is the consideration given in exchange. In the case of consumer's goods this explains an imponderable consumer's surplus. Likewise in the case of producer's agents there would be presumed to exist a surplus above cost, but the determination of the extent of any excess, or even its existence, must await an appropriate occasion for measurement. There is only an expectation and this cannot be measured. The realization criterion should supply an answer to the question: When does the entrepreneurial gain become a measured reality in contrast to a mere expectation?

Purchases therefore should be valued at cost. Cost should be measured by cash. This means cost must be the equivalent of cash at the time of the transaction. Discounts, rebates, or similar allowances are proper deductions from the figure which is otherwise an overstated cost. This is not the sum which eventually may be actually paid for the agent in question. If actual cash is paid at a date later than that of purchase, the true cost is the cash paid discounted as of the date of purchase; that is, if cash is paid subsequent to the date of acquisition, the cost of the agent is something less than the sum eventually paid. The difference is a cost of the additional

service of borrowing. Since there is no contract rate of interest involved in many such transactions, the cost of borrowing and the cost of the agent are not accurately separable and therefore exact cost of the factor is not possible. However unless payment is long delayed the error is not great and as a practical matter it may be ignored.

There are further practical difficulties. While it seems a simple matter to value any good at cost, this is proper only if the purchase is the result of arm's-length bargaining between parties of independent interests. In the case of purchase between employer and employee or between corporation and stockholder, the sale of property below the market price at which the same good is available to others may be a concealed wage or dividend. Such cases have offered the Treasury Department some difficulty, and, in such cases resort is taken to the concept of "fair market value." This requires a more or less arbitrary appraisal.

Property exchanges may be considered sales rather than purchases. To circumvent the realization of gains in forms of general property by resort to barter the Treasury Department early held (1923) that exchanges of property of like kind do not give rise to income or loss when held primarily as an investment. To hold that the exchange of like property for like meets the realization test would have raised squarely the feasibility valuing a unit of property held without exchange. This would open the door to general annual appraisals by "expert" appraisers and would subject the income tax to the defects of a general property tax. The rule of exchange of like property for like, however, rests upon precarious logical ground. Income is a value concept rather than one of physical things. It may be presumed that every exchange involves unlike properties in the economic or value sense. If this were not true there could be no motive for the exchange. Pre-

sumably each party to the exchange improves his position. The crucial issue is one of measurement of value when there is no reference to cash in an appropriate market.

THE RECEIPT OF ORDERS

The receipt of an order for a product is a favorable event for the producer; in fact in some situations this is the crucial point in the series of events by way of which accounting income may emerge. The mere receipt of an order however lacks the degree of finality required to book income. The test lies in the character of the property received. The contract may be executory with the possibility of cancellation in whole or in part. There might have been no acquisition of the agents needed to fill the orders. Even in the event of both orders received and factors purchased, still the seller is not in a position to collect from the buyer. Without a legally binding receivable it is far-fetched to say that any value has been added to the cost factors.

If the factors have yet to be acquired, processed, packed, and made ready for delivery there is little basis for recognizing a gain. However, here, as in many instances of the application or testing of an accounting principle the significance of the theoretical stand one takes is determined by the size of the item in question or the practical difference it makes to anyone.

In the case of large or unusual transactions the exact moment of realization is important. There are important legal as well as business considerations. On this event might rest the legality of a dividend or of the reporting of income for taxes. The time of realization may alter not merely the time of paying a tax but of the application of a higher or lower rate of tax because of a surtax bracket or of a change in statutory rate.

PHYSICAL PRODUCTION

In some instances income is properly recognized upon the basis of physical pro-

duction. Applicability of the rule, however, is not governed by physical production alone. (The feasibility of this method is conditioned also by the market for the production alone.) The feasibility of this method is conditioned also by the market for the product. Physical production must be accompanied either by a binding contract for sale of the product or by a market of a certain character. This test is approved by the Treasury Department for income tax purposes and has the approval of the courts.⁴ It is based upon good business policy.

An application of the physical production test of realization is that permitted farmers and producers of certain other basic materials. A farmer may reasonably value wheat or livestock for instance at prices quoted on an organized market less marketing costs yet to be incurred. Thus physical increments are converted into value terms. Any income is of course dependent upon the validity of the valuation figure. It is necessary to remember that income is a value and not a physical concept. In the case of staple products like wheat, cotton, and livestock the current market is a more reliable criterion of value than cost of production. The seller is in a near-perfect market. He controls only a negligible part of the total supply. Individual costs are frequently unknown or vary widely. Furthermore cost of production seldom corresponds closely to the price at which sale eventually takes place. While some further costs, as transportation to market, are yet to be incurred, these are relatively small and are known with approximation in advance.

With a strong inclination on the part of some accountants at the present time to emphasize the income statement rather than the balance sheet, it is well to remember that the nature of income is more easily

understood with reference to a balance sheet than with reference to an income statement. The income statement emphasizes positive and negative sources of income—not the form in which the gain is embodied. Accounting income cannot be determined except in the balance-sheet sense. It is measured by certain changes in assets or liability equivalents. Thus a farmer may value his wheat at market in substitution for his total investment in the production of the crop. Any difference in value reflects income or loss as a change in his net worth. An account receivable or wheat may be as valid an asset in support of gain as cash. Wheat in fact might be a more acceptable asset than cash, for if a farmer holds his wheat he is in effect valuing it (off the accounting record) above current market value. Hence in this instance valuation at market does not lack conservatism; it is in fact the best measure of value. When sale takes place the proper entry is to debit cash (or accounts receivable) and credit the inventory of wheat. A gain or loss might result from this transaction alone. The quoted price used in the inventory might differ from the price of sale, but this gain or loss need not be looked upon as an error in making the previous estimate of value. It is properly assigned to the period between the date of completed physical production and date of sale and should be attributed to speculation rather than to wheat growing. Any gain or loss could of course be analyzed into interest, storage service, and market fluctuation.

Many products for which a satisfactory organized market exists are completed some distance from the market. Estimated marketing or delivery costs, small in amount should be carried as a contra to the gross or quoted value of the product in the distant market. The corresponding debit for this credit is an income contra.

A good produced under an enforceable

⁴ Art. 36 of Reg. 45 and 62; Art. 42-4 of Reg. 101. *Thomas Cronin Co. v. Lewellyn*, 9 F. (2d) 974.

contract may be valued on the basis of prorating the completed contract price. Thus a canning factory producing under a binding agreement with another firm to take its product should value its completed inventory at contracted price rather than at cost. Delivery in such cases is little more than a formality so far as the income problem is concerned.

Many cases of incomplete physical production are appropriate for the booking of income on the basis of physical production. This is appropriate when the production period is long and is carried out under a binding contract. The best index of the economic progress of such an undertaking as building a ship, a superhighway or similar construction is physical progress as measured by cost. A market is assured upon completion. If interim cash collections are made the case for this method is stronger since the availability question is answered. The crucial matter is that of finding a satisfactory value criterion. Physical progress cannot answer the value question. Engineering progress is of little help. At best the valuation is somewhat indirect. All costs incurred can be capitalized. This is a better index of economic progress than physical measurements. To the costs is added an estimate profit based upon the ratio of total estimated costs to total contract price. If total costs are estimated to be 90% of the completed contract price, the estimated profit is 10%. Accordingly partially completed work will be valued at cost embodied in the physical product plus one-ninth of such cost.

Thus "Work in Process" is carried as an asset at cost plus an estimated profit. Upon completion and final settlement all errors are adjustments to the income of the final fiscal period.

A third possible application of the valuation at market principle is afforded in the case of securities. It would not be too far-fetched to class these instances with physi-

cal production. It might be denied that the security holder produces physical objects, but it is not denied that holding securities is in principle productive. Furthermore it can hardly be contended that the extent of productivity is precisely measured by contractual interest received, or dividends paid, surplus accumulation, or any or all of these. One of the most important indexes of the security holder's productivity is market fluctuations. Space does not permit an exhaustive treatment of this issue here and it must be reserved for later discussion.

Various cost methods of inventory valuation result in income recognition not based upon direct purchase and sale. This aspect of the problem has received more attention in recent accounting literature than the more general aspects of income realization.⁵ This aspect likewise need not be discussed in detail here.

DELIVERY OF THE GOOD AND TRANSFER OF LEGAL TITLE

In general the test of sale is that of transfer of legal title. However, the transfer of title is not always the test applied in legal cases.⁶ In this respect as a rule the accountant does not find it expedient to follow the legal niceties of the case. Nevertheless in many cases a discrete event associated with legal sale is of great importance. The difference of a day will sometimes alter the showing of income for two fiscal periods. No attempt will here be made to present an exhaustive treatment of the sale as a test of legally realized income. A reasonably complete discussion of this aspect of the subject appeared recently in the ACCOUNTING REVIEW.⁷ The present

⁵ See for instance *Inventory Valuation and Income Measurement*, C. T. Devine, University of Michigan Ph.D. thesis (1940).

⁶ *Wells Fargo Bank and Union Trust Co. v. Blair*, 26 F. (2d) 532; *Lucas v. North Texas Lumber Company*, 281 U. S. 11.

⁷ Cook, Franklin H., "The Sale as a Test of Income Realization," 14 ACCOUNTING REVIEW 355 (1939).

discussion will be limited to economic aspects.

The sale has come to be the conventional test of income realization. Even in accrual accounting it is assumed that no increment accrues until it is validated by sale. The efficacy of the sale test lies in several considerations. First, the sale subjects the value of the property sold to direct measurement. The test is most convincing if the sale involves delivery for cash. Even if sale is not for cash, in most instances the assets received in support of the sale are valid promises to pay in the near future and are supported by adequate security or assurance. These promises often are in the form of negotiable instruments readily marketable or easily valued in cash terms. Second, the sale coupled with delivery is usually conclusive evidence that the productive process has been completed or that the property sold has completed its usefulness to the enterprise.

When an enterprise is launched certain organization costs are incurred and various other preliminary activities are carried out, but there is little evidence of success of the undertaking until the product begins to emerge. Thus under ordinary conditions until the product begins to emerge there is only the investment to be accounted for. Delivery of the product to a buyer is the first clear evidence that any increment has been added. Delivery is made at a price which is agreed upon by two parties with opposed or independent interests. The sale price is "received" at least in the form of a valid receivable.

As a part of the negotiations between buyer and seller the task of investigating the credit of the buyer rests upon the seller. Mistakes will of course be made, but as a norm for correct practice it may be insisted that before sale is made the buyer satisfies himself concerning the capacity of the buyer in each particular instance to pay when payment is due. There is general if

not specific security. "Gross income" is accordingly recognizable to the full extent of the effective selling price.

An "allowance for bad debts" might well be disallowed on the ground that it is impossible to measure the extent of the uncollectibles. If each account when considered separately cannot be deemed uncollectible it may be concluded that no part of the total of all the accounts is uncollectible. The allowance method of estimating bad debts is based upon the presupposition that with a large volume of accounts the losses can be placed on a reasonably accurate actuarial basis. An inquiry into the nature of the situation will show little support for such a presupposition. The strongest argument for an allowance for uncollectibles takes into account the type of business, the "class" of customer, the character of the product, the "stage" of the business cycle, and general past experience. None of these conditions taken alone is a reliable guide and it therefore may be questioned if any combination of these is reliable. At best the conclusion is one of judging the future by the past. The history of a business or of the development of an industry or of the swings of the business cycle do not form an historical pattern which can be relied upon to repeat itself. While the Treasury Department is frowning on estimates such as allowances for future guarantees or contingencies it might reasonably be asked why estimates of uncertain bad debts have not been frowned upon.

Objection may be made to the booking of receivables at full value on the ground that this fails to present even a reasonably accurate income figure for the period of sale. Based on 100% collection any error at all means income is overstated. There is no possibility of an understatement. The cash eventually collected may never substantiate the previously recorded income figure. If an account can be demonstrated

to be uncollectible beyond a reasonable doubt during the same period in which the sale is made, the treatment is simple; it is simply that the sale is not effective and it is merely cancelled. There is the further loss of the cost of the item taken from stock and not retrieved. However, the uncollectibility of an account can seldom be demonstrated until a subsequent period. Accordingly if the soundness of an account is in evidence when the sale takes place, there may be reported income based on full collection in that period and in a subsequent period when worthlessness is ascertained there is a loss of the full amount of the asset account receivable.

A certain amount of collection expense is unavoidable. While ordinarily no expense can be recognized until actually incurred or validated by a transaction, nevertheless there exists an indeterminate expense and a corresponding liability which accounting principles would seem to recognize; but there is no actual liability nor even a contingent one. Nevertheless the collection expense is assignable to the revenues or losses since the nature of current operations makes these expenses necessary. Failure to allow for collection expenses cannot be justified on principle but rather on the practical consideration of the expenses being relatively small in amount. When incurred they may be booked as "losses," the result of past error in computing expenses.

There are two major objections to the sale as a test of realization. First the asset received, unless in the form of cash, is not immediately available as purchasing power, dividend distribution, or tax-paying capacity. This is scarcely a conclusive objection however; the only remedial alternative is the cash-receipts test which also has objections. It can be reasonably argued that a feasible and generally satisfactory test of realization does not require all revenue or income to be supported by

assets entirely liquid or fully available as purchasing power.

The second objection is that of over-emphasis of sale as a single event among those of a series in the income producing process. The sale is subject to a certain amount of arbitrary manipulation. This is more evident in the case of nonoperating income than in the case of sale of regular product. An outstanding example occurs in the case of sale of securities whether regularly traded or not. Especially when there is an advantage to be gained by altering the income showing for a period, a sale may be consummated at a different time merely for the sake of assigning the gain or loss to one year rather than to another.

The following sort of example has often been noted. The merits of the case justify repetition. A and B each bought a share in the M Company for \$100 during 1938. During 1939 the stock being listed on an active exchange, rose to \$125. A sold at \$125 while B continued to hold his share. A reported \$25 net income on which he paid an income tax. During 1940 A anticipated a further rise in the market, in contrast to his opinion during the previous year, and bought a share again at the market price of \$125. At the end of 1940 B values his share at cost \$100; A values his share at cost, \$125. In the meantime A has realized a profit of \$25 by both cash receipt and sale test. His \$25 gain is invested in the same form of "paper profit" as B's and is no more available for any purpose than is B's "paper" increment of \$25. Since the two shares are interchangeable units of the same issue of stock, they are necessarily of the same importance in the conduct of the two men's economic affairs. Any increment has been equally available to each man during the entire period of the holdings. In such cases and in others not dissimilar the sale test is absurd; yet it persists in current practice and re-

mains the dominant realization test.

In connection with the subject of paper profits the remark of the German writer Schäffle over a hundred years ago should be remembered: "Das Einkommen hat nur Buchhalterische Existenz."

A sale made on approval gives a questionable test of realization for the obvious reason that the transaction is not conclusively terminated. Here judgment concerning completed production is deferred pending a decision of the buyer. When there is considerable doubt concerning the final outcome of a sale agreement the book-keeping of income lacks desirable conservatism. Any recognition of income is somewhat arbitrary until the goods are accepted by a buyer. The principal accounting records therefore consist only of memoranda; the data does not represent positive accounting elements. In most such cases the cash-receipts basis gives a more satisfactory test of realization. For reasons suggested above the estimate of an allowance for cancellations lacks the accuracy for which an accountant strives.

Instalment sales may be a variation from the sale test of realization. The name is derived from the fact that the cash side of the transaction rather than the sale aspect is controlling. There are two alternatives. First, in case of adequate margin of cash collected and therefore only a remote possibility of ultimate loss of profit, no special recognition need be made of the fact that collection is by small periodic receipts instead of by a larger single sum. In the typical case the down payment coupled with the buyer's credit standing is ample safeguard against repossession. Even in the few cases in which repossession is necessary the value of the repossessed goods may be expected to compensate for the unpaid balance. In short it may be argued that the instalment seller takes little risk.

Where risk of collection is great a second

alternative of the cash-receipts basis can be used. The special bookkeeping procedure in such cases is fairly simple. The principle merely involves keeping a separate self-balancing ledger in which the customers' accounts and a compensatory control account are kept. In this ledger the entries are made at selling prices. This is a memorandum record and not part of the integral bookkeeping system. As cash is collected the regular books are charged with the receipt, and the corresponding credit is apportioned between a "Reserve for Customers' Equity" based on cost and a special "gross" income or profit account. The "Reserve for Customers' Equity" is a contra-asset, being deducted from the segregated inventory which should be made on a cost basis at the time the goods are delivered. This reserve will be closed to the special inventory account upon collection of the final instalment. Duplicate entries crediting the customer and debiting the control are made in the auxiliary self-balancing ledger as collections are received. Assume an article sold for \$100 is being carried at cost, \$80. First, \$80 will be set up as a segregated inventory. The per cent of profit is 20 and if \$25 is received it is apportioned \$5 to income and \$20 to "Reserve for Customers' Equity," i.e., the recovery of cost. In the event of repossession the recovered good will be valued at the amount of its cost not yet recovered.

THE RECEIPT OF CASH

The receipt of cash is the most convincing test of realization. The uninitiated have difficulty in distinguishing between income and receipt of cash; however the accountant knows that cash receipt is quite a different concept than is income. The most obvious basis for distinction is that in the case of income there must be a gain in the balance-sheet sense. Conventional realization tests apply to gross rather than to net income. This is properly so because

the right and left sides of the income account are entirely independent so far as amounts are concerned. The realization of expenses must not be causally hitched to the realization of revenue. However this must not in any sense minimize the importance of properly matching revenue and expense—in fact quite the contrary. The revenue for any period must be carefully matched against the appropriate expense to ascertain if there is net gain or loss. Any gain or loss is a conclusion, the result of proper matching revenue and expense. It cannot be determined until the revenue producing elements, expenses, are independently measured and properly matched against the revenue produced. The revenue of a period should be matched against those expenses associated with such revenue, but neither the expense nor the revenue is controlled in amount by the other. Ordinarily the revenue side of the account governs the time of matching, but not always. In some cases absurd results will be achieved as for example those of long-term production contracts discussed above.

This necessity of matching revenue, or gross income, with the appropriate costs offers an important objection to the use of the cash-receipt test. There is little controversy over the two associated but separate characteristics of income, realization and gain; but the cash-receipt test satisfies only the first requirement, not necessarily the second. Very frequently the receipt of cash is the last event in the income producing process. It is sometimes inexpedient to defer matching of the appropriate expenses until cash is received. To do so would also be somewhat unconventional. It would meet with a storm of criticism from many who discourage the capitalization of intangibles.

A second objection is that it is too conservative to wait until cash is received before recognizing income. A consideration

of the measurement and certainty of the amount is in many instances more important than the form of property in support of income. With regard to the latter the principal limitation is availability as purchasing power. However, accounts receivable are usually found adequate to meet the availability test. Moreover a new aspect of the problem not heretofore given much consideration is the fact that a typical modern enterprise need not as a general rule require that its income be in cash form to the full extent of gross. An investment may be considered well placed even though it is not immediately available as purchasing power. Cash is useful in business for further investment in income producing sources, for the payment of current out-of-pocket expenses, and for the payment of dividends. For purposes of reinvesting or shifting of capital investment or the payment of dividends, liquidity or cash position must in any case be considered as a problem distinct from the measurement of income. The payment of expenses are frequently not immediately associated with the gains produced. Such expenses as depreciation, which in modern business economy increase as durable depreciating equipment plays an ever increasing role among the agents of production, are far removed in time, even though they represent out-of-pocket costs, from other costs such as raw materials and wages. As for the third requirement, availability for dividends, in no case need it be more than net income that is immediately available. In fact many of those who would require that gross income be fully available in cash form are among those who object to exercising pressure on a company to force distribution as dividends even as much as to the full amount of the company's net income.

In some cases, of course, cash is received before the good or service sold is acquired by the seller. In such instances there is no

question concerning realization, but here again there is a question of measured gain. While recognizing a liability for the full amount, deferred revenue, will postpone income recognition pending the completed transaction, in some instances legal difficulties are encountered in doing so. Furthermore even in these cases there is still the problem of proper accrual of expenses for purposes of matching with the revenue deferred.

A heretofore unrecognized source of gain measured by actual cash receipt is borrowing. It may be said that borrowing presumably incurs a liability equal to the sum borrowed and that consequently no gain is possible. This contention however does not take into account the entire situation. Assume for example that a sum borrowed is secured solely by a mortgage on certain property. If the sum borrowed is greater than the cost of the mortgaged property, there is a measured gain which the borrower receives in cash. The borrower, assuming no other attachments are available to the mortgagee under the terms of contract, may voluntarily fail to repay the loan and in effect sell the property to the mortgagee. Recently farmers borrowed 70 cents a bushel from the government on wheat as collateral. This price sets a minimum to the farmer's gross income from wheat. As a rule the pledged property will be worth considerably more than the sum borrowed and the borrowing device will therefore establish only a minimum of income that may reasonably be recognized; there may be a margin above this, which, for the time being will be indeterminate.

Of course in the event of foreclosure, should the mortgagor assume payment in addition to the surrender of the pledged property, then it could reasonably be argued that the cost basis of the pledged property does not give the total cost assignable to the cash borrowed. In this event no income can be proved. However,

if under the terms of the contract consideration other than the pledged property is not available to the mortgagee, the borrower might reasonably be required to raise the basis of the pledged property to the amount of cash borrowed and recognize income realized by the cash receipts test. Later when the loan is repaid, the basis would not be altered nor any loss taken; the fact that the loan is repaid and the security released verifies the new basis of the property as a minimum.

The cancellation of indebtedness for a sum less than the immediate legal liability is recognized as a source of realized income.⁸ It is sanctioned by the courts and by business practice. This procedure is justified on the ground that in numerous instances the transfer of cash is circumvented by the offsetting of mutual obligations. The requirement of measurement is satisfied and an important purpose of cash—application to the removal of indebtedness—is fulfilled. This is one of several examples of constructive receipt of cash recognized in law. Without such recognition many individuals or firms could by fiction or formality be able to escape the reporting of income. It is not within the scope of this treatise to present the doctrine of constructive cash receipt in detail.

Not far removed from constructive receipt are certain cases of leasehold improvements made under contract by the lessee of real estate. This situation has been the subject of many a controversy and is still in a somewhat unsettled state. The issue merits at least passing comment here because two aspects of the problem seem to have been generally overlooked. First, the theory that leasehold improvements made by the lessee constitute ad-

⁸ A view contrary to current practice has been expounded by Hord, Warner H., "The Flow of Property in Actually Executed Business Transactions as a Basis of Internal Accounting Control," 14 ACCOUNTING REVIEW 272 (1939).

ditional rent has received too little consideration. The landlord, anticipating an investment in property improvements may circumvent the receipt of rent in cash form and its application to durable property improvements by contracting with the lessee to construct improvements while the lease is in force. That the feasibility of this view has not been fully considered receives support from the fact of neglect of a second important aspect. It is absolutely necessary in connection with this view that the improvements made by the lessee be required of him under the terms of the lease. Only in case the improvements are entirely voluntary with the lessee can it be conclusively argued that the landlord receives nothing of value. Only voluntary improvements may be presumed to be of use to the lessee and to have no value to the landlord either during the lease or beyond the period which it covers.

The exact time of reporting income by the landlord is subject to controversy and perhaps the Treasury Department is justified in allowing several alternatives to a taxpayer. It might be reasonably argued that the lessee's cost should be considered income to be apportioned and reported by the landlord over the period of the lease in equal periodic instalments. The landlord should of course be permitted to deduct depreciation as appropriate to the case.

The argument often advanced by the landlord that he receives nothing on account of improvements subject for a time only to the tenant's use is not a weighty one. Lack of availability can be denied. Any rent for which a bargain is made at the outset is available in precisely the form stipulated in the contract into which the landlord has entered. It is a thinly veiled subterfuge that allows the landlord to bargain deliberately for rent in a form which he knows will not be liquid at a date when his income tax is reported. He had simply elected to commit his rent to the

extent of the improvements to a non-cash form.

The courts seem to have taken a somewhat naive view of leasehold improvements. This issue is of special interest because of the light it sheds on the legal concept of realization in general. In *English v. Bitgood* (21 Fed. Supp. 641), consistent with other decisions, the court followed the well-known legal realization criteria of severance and disposability. The court said:

The question as we view it is whether it (the improvements) is so merged in the land as to become financially a part of it, something which, though it increases its value, has no value of its own when torn away.

Accordingly the court saw that a building may become financially a part of land as well as physically, but it failed to consider favorably the possibility that financial separation and disposability might be possible without physical separation. The courts have often been impressed by the concept of "physical capital" when capital as value would lead to a different conclusion.

The opposite legal view expressed elsewhere is only dictum.⁹

I am not passing upon the question whether the value of such a building would be taxable income to the landlord if erected by the tenant pursuant to a definite obligation to do so contained in the lease. In such a case it might well be argued that the increased value of the leased premises represented an additional rental to the landlord which was reserved by him and agreed upon when the lease was executed.

TERMINATION OF GUARANTY OR SIMILAR CONTINGENCY

While in some cases it is unnecessarily conservative to postpone income recognition until evidenced by the receipt of cash, in others the receipt of cash takes place before the outcome of the income situation is completely known. Aside from cases in

⁹ *Staples v. U. S.*, 21 Fed. Supp. 737.

which cash is admittedly received as an advance payment, cash is sometimes received upon delivery of good or service but with some liability attached for guarantees, maintenance, or after-delivery service costs. The realization criterion might be satisfied by the receipt of cash, but the fact of gain is as yet uncertain. Many cases of this sort have been the subject of legal controversy. The general attitude of the Treasury Department has been that when a taxpayer receives "earnings" under a claim of right and uses them as his own he has received income.¹⁰ If the validity of the earnings is contested and later they must be paid to the other party in litigation, the situation is not altered. There is merely a deductible item for the year in which the sum is paid out. The Supreme Court has supported the position that the receipt of money may constitute realized income even though the money is subject to further litigation.¹¹

In the case of the Uvalde Company (1 B. T. A. 932) the doctrine that all that comes in is income was upheld. The receipts of a paving contractor (less expenses paid or incurred) constituted income even though the contractor was under agreement to keep the road built in repair for a period of years without further compensation. The decision rested upon the impossibility of determining the exact amount of the liability for future repairs. No allowance at all was made despite the fact that a bona-fide engineer's estimate considered the probable future repair costs to be more than half the value of the entire contract.

Two subsequent cases are of interest. In the first of these a contractor laid a pavement requiring a construction period of six months.¹² Income was reported on

the basis of completed contract, which contract required that the builder maintain the pavement in repair five years without further compensation. A request for a deduction for maintenance in the year the pavement was completed was denied on the ground that the guaranty was only "collateral to the main contract." The contractor "might, or might not, be called upon to repair its work within the five years immediately succeeding final payment to it." If a deduction were allowed, "an accounting fallacy would deprive the United States of tax actually due it." The character of this accounting fallacy was not illuminated nor authority cited. What had come in was income.

The second case involved a petition for a review of a decision of the Board of Tax Appeals.¹³ The petitioner had bought Florida real estate in 1925 paying therefore (a) cash, (b) assumed an existing mortgage, and (c) secured second mortgage notes on which he, the petitioner, was liable. During the same year a corporation was formed to which the real estate was sold. The petitioner's profit from the deal was \$18,000 received in cash and capital stock. There remained, however, a contingent liability for the payment of the notes (c, above). Later the venture turned out bad and the corporation permitted the real estate mortgage to be foreclosed in 1930. A sum was realized sufficient to pay both mortgages and remove the petitioner's contingent liability, but the stock held became worthless. The \$18,000 profit realized in 1925 had to stand with no allowance for the contingency. The loss on the stock was, of course, deductible in 1930, but with respect to the contingency in 1925 the court said: "The mere existence of a liability is not sufficient to establish a deductible loss . . . it does not create cer-

¹⁰ G. C. M. 16730; *Brooklyn Union Gas Co. v. Commissioner*, 22 B. T. A. 567.

¹¹ *North American Oil Consolidated v. Burnet*, 286 U. S. 417.

¹² *Harrison and Donnally v. Heiner*, 28 F. (2d) 985 (1928).

¹³ *Fawcett v. Commissioner*, 63 F. (2d) 445; 290 U. S. 641 (1933).

tainty of loss, . . . The loss must be actual and present."

The two cases are not similar. In the first, the probability that considerable expenditure by the contractor for repairing new pavement over the first five years of use bore a high degree of certainty. Anyone would presume the certainty of a large expenditure, although the amount is not susceptible to close estimate. In the second case, the probability of the contingent liability becoming an actual one was remote. The notes were reasonably well secured and in fact were drawn without the expectation of any actual liability ever materializing, which in fact never did occur even in the face of actual unforeseen adversity. The reasoning in the second case therefore seems to contain more substance.

Another case which seems to involve the improper use of the cash-receipts test involved rentals on a 99-year lease.¹⁴ The taxpayer, reporting on a cash-receipts basis, was required to report the entire sum as income in the year received. Since a 99-year lease is virtually complete surrender which amounts to a sale, under present surtax rates for individuals the result is confiscation of a substantial part of the taxpayer's capital.

Another similar case is on record.¹⁵ A contract for the use of a copyrighted plan provided for weekly payments to the owner of the plan for a ten-year period. The right to receive these weekly payments was later sold for a large single sum in full settlement of the ten-year contract. The Circuit Court of Appeals upheld the Board of Tax Appeals in finding income for the year in which the final settlement was made even though the books were kept on an accrual basis. No original cost or other basis to the taxpayer was shown, but the validity of the original claim for the periodic receipts was not denied.

In 1938 an authority of the Treasury's General Counsel the right to defer revenue was denied.¹⁶ Sums of money were received by a publishing company for subscription service to be rendered in the succeeding year. The Treasury Department took notice of the fact that there were no restrictions as to the disposition or use of the funds received and held that they constituted income for the year in which received regardless of the fact that the books of account were kept on an accrual basis.

In general, then, neither the Treasury Department nor the courts have been willing to wait until all doubt is removed concerning the realization of gain. Cash may be received with a contingency or other indeterminate liability attached and "income" thereby may be realized. The principal ground on which such a stand is taken is the lack of certainty or the lack of accurate measurement of applicable costs.

SUMMARY AND CONCLUSIONS

The cash-receipt and accrual methods of accounting for income are not two distinct methods. Nor are all the feasible methods of accounting for income adequately described by these two supposedly fundamental types of accounting. There are many equivalents of cash which are now recognized legally as constructive cash-receipt; there are many kinds of accrual. The cash-receipt basis may be contrasted with any of several accrual methods which might apply in particular instances.

In general there has been a tendency for various accrual methods of accounting to displace the use of a cash-receipts basis. Income must be objectively measured by such a device as (1) a completed transaction between parties of independent interest, (2) apportionment between fiscal periods on an objectively determinable basis, the total for the various periods being determined by a completed contract,

¹⁴ *Renwick et al. v. United States*, 87 Fed. (2d) 2123.

¹⁵ *Taylor v. Commissioner*, 70 Fed. (2d) 619.

¹⁶ G. C. M. 20021 (1938).

or (3) reference to price in a market of a certain recognized character. These requirements are necessarily general. Income determination cannot be reduced to a few simple rules. Any convenient rule of thumb method should be the result of an attempt to apply a comprehensive theory.

Since the first requirement of recorded income is measurement, the measuring device is of extreme importance. In order to have the required measurement there must be, save in the rarest of cases, a considerable degree of liquidity or availability for disposition such as for dividends, consumption, tax payments, investment or similar conversion. The question of whether availability for conversion to other form must be to the full extent of gross income, net income, or only a substantial part of the net income has not for the lack of space here been fully considered. However, a tentative definition of realization can be offered.

Realization may be defined as the act or condition of placing a value increment into disposable form. This might include any activity from the conversion of property or service offered into cash, on the one

hand, to the recognition of certain appreciation on the other. The latter would include only the appreciation of readily marketable, interchangeable units of a standard product like wheat, cotton, certain minerals, and certain issues of corporate equities. The application of the principle of valuation at market would be limited by the state or condition of the market. Greater use of markets, such as organized cotton and grain exchanges, or approved organized stock exchanges, might be made with respect to income recognition. In this case favorable consideration would also have to be given to the recognition of losses on the same basis.

This leaves a large part of the field of exploration for developing new methods of income determination relatively untouched. For the lack of space a more complete discussion of the feasibility of valuing readily marketable securities at market has been brief. Another aspect of the corporate problem which it has been impossible to consider here is that of the individual stockholder recognizing income as it is earned by the corporation rather than as disbursed as dividends.

ACCOUNTING IN THE GRADUATE PROGRAM OF THE SOCIAL-SCIENCE STUDENT

WILLARD C. BEATTY

RESEARCH into many important problems requires an understanding of both economics and accounting. While it cannot be supposed that a single course in accounting will provide an adequate background for all problems, some insight surely may be gained into the nature and purpose of accounting. A beginning at least may be made in a course of the nature suggested by the title of this

paper. The function of such a course would be an exposition of the basic principles of accounting and as far as possible an attempt would be made to explore some of the similarities and differences between economics and accounting.

Before examining in detail the content of the course and the methods of presentation one should consider the students. Their background and interests will have

much to do with the organization of the subject matter.

Accounting has a limited appeal to students of history, sociology, and political science. Most of those enrolling in the course will be students of economics. Of these the greater part will already have had sufficient background to give them an insight and interest in the problems of economics and accounting not uniformly characteristic of sophomores and juniors. Most of them will already have had courses in money and banking, corporation finance investments, marketing, and statistics. In addition some understanding of theory may be expected.

The enrollment in such a course would ordinarily not be large. Many graduate students in economics would already have had accounting since it is one of the courses most widely elected by undergraduate economics majors. This small enrollment would make possible the use of the seminar method and allow greater individual attention to each student and his special interests.

The reasons that graduate students have in taking such a course will provide some information which is valuable in determining the content. A few may be taking it with some thought as to the possibility of being called upon to teach an elementary course. Teaching is still the largest single outlet for the products of our graduate schools, especially for those students who take their doctorates. Teaching positions as we all know, sometimes call for strange assortments of abilities.

The majority however, will have come to realize that for further work in such fields as money and banking, especially in its institutional aspects, corporation finance, investments, marketing, and public control, a working knowledge of accounting is almost a necessity. All investigations and studies that depend upon the use of financial data derived from balance sheets,

income statements, or operating reports presuppose a sound knowledge of accounting. Lacking this there is a real possibility that the full implications of the data will not be utilized or that unwarranted conclusions may be drawn because of misunderstanding of the assumptions and principles governing the accumulation of the original accounting data.

It seems rather clear that the interest of these students will be primarily in the analysis of transactions rather than in the techniques of recording. The essential purpose of the course is to develop carefully and as fully as possible within the limited time the principles or standards by which transactions in the broadest sense may be analyzed and the results interpreted. These principles or standards can be approached from many different avenues. The various fields suggested for special study later in this paper represent some of the avenues, each of which will emphasize certain principles more than others yet in almost every case all are involved. It is essential that the assumptions and the conventional practices on which accounting analysis is based be made clear for the ultimate usefulness of the results rests in considerable measure the assumptions underlying the analysis and accumulation of accounting data.

Mastery of the fundamental accounting processes is essential since it is basic to all that follows. The fundamental operations of analysis of transactions, journalizing, posting, adjusting and closing must become well incorporated into the students' mental reaction mechanisms. To abbreviate this part of the course is false economy.

It should be possible during this part of the course to draw problems and illustrative material from many fields other than retail merchandising. The processes of the expansion and contraction of bank credit, the clearing and collection of checks, discounting and rediscounting, might well serve as the source of problems. One might

even trace through some transactions of the British Exchange Equilization Account. Other fields will readily come to mind from which problems and illustrative material may be drawn. The point is merely that by judicious choice of illustrations and problem material one may teach the ordinary accounting processes quite as satisfactorily as by the more common sort of problems, and in addition draw upon the students' backgrounds in these special fields and perhaps stimulate the interest of those not already familiar with the field under consideration.

Such attempts to show direct uses of accounting methods in analyzing economic problems will serve the double purpose of facilitating the analysis of particular problems and will show by practical illustration that accounting is a useful tool for the economist. In a large measure this is the purpose of the course. In addition such devices may help in the process of coordination of ideas which because of teaching needs have been developed in a series of different courses.

Beyond this irreducible minimum of accounting fundamentals the possibilities of choice increase. In most respects certain fundamental problems of valuation, of cost, of income, and of expense are common to all the suggested fields of emphasis. Yet each raises problems peculiar to the subject matter concerned, in part matters of technique only but in part problems of analysis.

It seems to me that the areas or segments of accounting discussion of which would be most useful and significant to economists would be (1) fundamental concepts, (2) corporation accounting including consolidated statements, (3) goodwill, (4) valuation, (5) depreciation, (6) cost accounting, and (7) statement analysis. I shall try to point out why I think these are particularly suitable for inclusion and emphasis in a course such as this.

The basic assumptions and the funda-

mental concepts of asset, liability, proprietorship, expense, revenue, and cost should receive major emphasis in all courses in accounting. Since many of these terms are used also in economics there is special need in this course to explore rather more thoroughly than common the precise meanings that are most useful and pertinent for accounting. We will find that some terms, of which cost is an example, have different meanings in these two fields. If confusion is to be avoided these differences must be studied in considerable detail.

Even the most casual survey of accounting literature of the past five years indicates that accountants are of one opinion as to the importance of these fundamental concepts if not as to the precise meanings that should be conveyed by each of the terms. To survey the whole of this literature as class assignments is clearly beyond the compass of a year's work but a critical discussion of such stimulating work as Paton and Littleton's *An Introduction to Corporate Accounting Standards* could well be included within the time available.

The corporation has become so typical as the method of organization of modern industry that it is already given considerable study by economists. Its detailed structure and the methods of financing are the subject matter of corporation finance. Investments courses give considerable attention to corporate securities, among other things. Other economists are interested in the corporation as a method of concentration of control, as the basis of taxation and for many other reasons. Because of this widespread interest in the corporation and the problems peculiar to it, corporation accounting may well be given more intensive study than in an undergraduate course. The problems of earned and paid-in surplus, of reserves, of premiums and discounts on securities, of par and noper stock are all deserving of considerable attention.

Ample literature exists for classroom assignments, outside readings and special reports by those having special interests in corporate problems.

A special segment of corporation accounting formerly given no attention in elementary courses but more recently finding its way into the beginning texts is consolidated statements. This field abounds in technical complexities most of which would of necessity be reserved for later specialized courses. Most of the problems in which the economist would be interested do not require an elaborate technical background for fruitful discussion. The nature and origin of consolidated goodwill and surplus, the computation and meaning of minority interests and the many problems of valuation that arise have more than a passing interest to students of finance and public control. These students, from their own background and special interest in these fields, should provide many interesting and provocative problems and illustrations during the course of the discussion.

Many phases of the general problem of goodwill will have been discussed under the topic of consolidated statements. Goodwill is more than a by-product of the preparation of consolidated statements however. In considerable measure the whole issue of valuation is raised and must be discussed. Here perhaps as squarely as anywhere, with the possible exception of certain aspects of cost accounting, does one meet the issue of original versus replacement costs.

By long training the economist has come to think very largely in terms of current replacement cost. Value and distribution analyses in economic theory are based upon replacement cost. The cost curves for the individual firms out of which supply analysis is developed assume replacement cost for all the cost factors entering into the analysis.

The accountant, on the other hand, uses

original cost as the basis of his theoretical structure. The issue of original and replacement cost is joined and must be discussed with due understanding of the problems and purposes of both economics and accounting. To say that these two disciplines differ in their points of view will satisfy neither instructor nor student. All are interested in the reasons that have made the adoption of a particular point of view logical and useful for the particular purposes of the analysis.

A considerable literature exists, which if exploited, will provide an ample basis for some lively discussion and add materially to a deeper understanding of the points of view of both economics and accounting. Students in corporation finance and investments, particularly those interested in problems of security evaluation, should be able to contribute much to these discussions.

The topic of valuation has already been mentioned as appropriate for special consideration. Problems of valuation are intimately connected to the periodic matching of costs and revenues. Here are included all of those much debated issues of current replacement versus original cost, cost or market whichever is lower, appreciation of fixed assets, writedowns of plant and other assets, and the whole debated issue concerning the recognition of the changing purchasing power of the dollar. Recently there has developed special interest in inventory valuation and the price at which it should be included in cost. The literature on this point alone has grown to notable size.

The arguments on all sides of most of these questions are hardy perennials. Furthermore, much of the superficially contradictory literature is not essentially so. The argument often may be resolved when the purpose of a particular point of view is made quite clear. One may for example make a good case for valuing as-

sets at liquidating values if a firm is in process of liquidation. Likewise if the ownership of assets is about to be transferred, current replacement may seem appropriate. But it appears to be generally conceded that neither of these conditions constitutes the normal situation. Accounting principles or standards are most useful if they are based on typical conditions.

All this of course raises the beginning question: what is the fundamental purpose of accounting? Accounting statements cannot serve all possible purposes equally well. The term valuation carries an implication of purpose. The differences in purpose between accounting and economic analyses are brought into sharp relief. Discussion of these differences is indispensable to a better understanding of both economics and accounting.

There is little need to mention the field of depreciation. All are aware of its importance and also of the range and extent of the literature. One could not do more than sample some of the more pertinent studies, among which Perry Mason's, sponsored by our association, should be included.

Those especially interested in utilities, railroads and public control in general will be most interested in this problem. Recently, however, there has been considerable interest in depreciation and replacement policies by business-cycle theorists. Some students in general economics will doubtless wish to discuss Mr. Keynes' "user cost" analysis.

A survey of some of the major problems of cost accounting would be a useful part of the course. This is now being included in many elementary texts. The simpler techniques and the basic design of cost systems can be developed without the tremendous detail characteristic of specialized courses in cost accounting. The emphasis would be on the analysis of costs

and the principles governing their allocation to products and processes.

In a very important sense cost accounting has a more fundamental kinship to general economics and particularly to value theory than does financial accounting which receives the major emphasis in most elementary courses. There is a natural affinity between the accounting and the economic approach to the problems of cost of production. The approaches of these two disciplines are justifiably different yet both deal with the same fundamental problems.

With the development of the theory of imperfect competition in the last fifteen years, economists have been giving renewed attention to the problems of price policy of the individual firm. This entails a more detailed analysis of the cost problems of the firm than had been common in the past. Much of this part of value theory has already found its way in the more recent beginning texts in economics. While much of the literature is abstract and theoretical, the problem is nonetheless very real and practical. A firm does have the problem of determining how much to produce; and, in the case of branded and trademarked goods, there is some range within which its price policies must be considered.

Price policy and output to be produced depend on both demand and cost. Those whose function it is to determine price policy for the firm would naturally turn to the cost accountant's data for information on costs. Are these data those which would be ideal for price policy considerations?

Generally the data most useful for policy determination so far as cost figures bear on the matter, should be based on present values rather than original cost. The economist's theoretical analyses of such problems are always based on present values. Since the accountant's data are based on original cost some adjustments

must always be made. But it should be realized that there are many important details needed for a price-policy analysis, even from the cost side, that do not get into the cost accountant's records at all. Such things as the effect of today's policy on tomorrow's are hardly susceptible to accounting treatment, yet they may be important in making final decisions.

The analysis of price policy, then, may carry one well beyond what the accountant would ordinarily deem to be his legitimate sphere of activity. The accountant has so far confined himself largely to historical facts. Price policy goes beyond this in many respects.

Many, even among accountants, are questioning whether cost accounting might even have a set of principles separate and in part distinct from financial accounting. Some few have gone so far as to urge the incorporation into accounting records of replacement costs for all the elements of cost. Still more are now urging the use of replacement cost at least for materials charged into process. The debate is not yet concluded.

This is not the place to discuss the issue. It was raised largely because it illustrates the peculiar significance of cost accounting for such a course. The controversy is still active and the issues are significant to both cost accounting and to economics. The importance of purpose in this analysis will be central in the arguments.

Accountants themselves, in the study of flexible budgets, have drawn upon many ideas long familiar in economic analysis. Marginal and differential costs are beginning to find their way into accounting texts. Greater interest is being shown as the analysis of accounting data is drawn upon more extensively for administrative and policy making problems.

This is necessarily an inadequate presentation of the points of agreement and divergence yet it will I hope show the perti-

nence of an extended discussion of the theory of cost accounting in the course now being considered. There is in this field a unique community of interest, the development of which will enrich both economics and accounting. An understanding of some of the details will make measurably less formidable the economist's abstract analysis of cost of production, and at the same time give the cost accountant some insight into problems that lie beyond the ordinary scope of his data.

The literature is not well adapted to a study of cost accounting theory as is here contemplated. A real task of organization and presentation will fall on the instructor. Selected chapters from texts on cost accounting could be used as the basis for discussion of many points. Several monographs and periodical articles could be used. Among the monographs Herbert Taggart's two studies based on his NRA experience will be very useful. Several of the N.A.C.A. Bulletins and many articles in the Yearbook would be pertinent. The *ACCOUNTING REVIEW* and the *Journal of Accountancy* contain many useful articles.

A survey of statement analysis would be useful to students of finance. There is little need for special comment since the literature is ample and there would be no need for any special emphasis for purposes of this course.

In this brief discussion of topics I have included those which I believe would be most useful to students of economics. They are for the most part those areas in which the fields of economics and accounting are closest together or even overlap. Several other things might have been included such as partnerships, a brief survey of income tax problems, or a more detailed study of some of the useful techniques. All these and many others are essential to a well rounded background in accounting. Yet they would I think be of less use to an economist than most of those I have se-

lected for emphasis. Many may not agree with the general fields I have chosen to emphasize. These choices are of course expressions of personal judgments.

There would seem to be no reason why the various parts of such a course should receive the same emphasis every year. The special interests of students may differ from time to time. By its very nature this course would not have the same neat pattern that has been fairly well developed for the beginning course. On the other hand there is not the same need for detailed organization since a considerable amount of flexibility will enable one to adapt it more readily to the changing interests of students and to current circumstances.

The general content such as I have suggested would be found in no single text. There is no lack of readily available material for the introductory part on basic accounting procedures. For the most part this section would be much the same as the undergraduate course except that one should be able to cover it more thoroughly in a shorter time.

For the remainder reliance must be placed on periodicals, specialized literature, monographs and selections from general works. Of the monographic literature some of the most useful has been sponsored by our association. This in itself attests the general estimate of the problems dealt with by these volumes. The

ACCOUNTING REVIEW, the *Journal of Accountancy*, the N.A.C.A. Bulletins and Yearbook and many other periodicals have an abundance of material. One should not lack for stimulating reading.

The use of these periodicals as part of the regularly assigned reading will be found practicable if the number of students is not large. The kind of course, that is the range of topics covered and the emphasis, that has been suggested in these pages really implies only a small enrollment. Reliance on library sources for regular assignments is not satisfactory for large classes.

To teach the philosophy of accounting in such a course as this would not be an easy task for most of us. For the fullest usefulness it calls for a wider range of information than most of us possess. Yet if we are to make accounting appreciated by workers in many of the fields of economics we can begin by turning to those areas where the fields are closest together or where the problems of the two fields overlap.

Such a course would fail to accomplish its full purpose if the instructor did not have a broad background and sympathetic understanding of economics as well as accounting. Such a course cannot be built overnight. It will grow in usefulness with time and experience. It depends to no small measure on the breadth and richness of the instructor's background and interests.

A GENEALOGY FOR "COST OR MARKET"

A. C. LITTLETON

SEVERAL surveys of inventory practices have been made. The N.A.C.A. Bulletin of March, 1937, showed that 87% of 197 companies used the rule of cost or market whichever is lower for raw materials in their balance sheets. A report

of February 1938 by the National Industrial Conference Board analyzed 916 companies. The rule was applied to raw materials in 63% of the cases, to goods in process in 38% and to furnished goods in 40% of the cases. The research depart-

ment of the American Institute of Accountants examined 500 annual reports for 1939. The figures tabulated in *The Journal of Accountancy* for October 1940 show that 56% followed this rule "or variations thereof."

These surveys as samples of practice show that the rule is in general use. But a rule may be widely useful in business without having the character necessary to make it a fundamental proposition of accounting. If we wish to search out the character of this rule, if we would like to determine whether it is a convenient and expedient rule of thumb or a basic accounting idea, we might begin by looking up its ancestry.

The information is not available to enable us to find the real origin or to trace step by step the way it came to receive the acclaim these surveys seem to show. But there is enough material at hand to indicate that it is a result of the mingling of two bloodlines: expediency and convenience. It is this mixed ancestry which accounts for the notion that taking an inventory is a process of evaluation rather than a process of cost-pricing.

I

Let us go back about five and a half centuries. If long established precedent is enough to justify a rule, the rule should stand, for cases are known as early as the beginning of the fifteenth century wherein goods in inventory were priced below their purchase cost.

A German scholar writing of the manuscript records of an Italian business man, Francesco di Marco,¹ pointed out that an estate costing 366 fl. in 1393 was valued in an inventory of 1412 at 240 fl. because the vineyard had been spoiled. He also showed that this man's furniture and utensils were valued by appraisers in 1408

at less than cost because the items had deteriorated. These cases we would now say reflected damage and depreciation. But there is more. A stock of almonds bought for trade in 1406 at a cost of 60 fl. appeared still unsold in a later inventory at 50 fl. Beneath the item was this notation: "We have entered the 10 fl. in the debit of goods profit account as damage [loss] because we no longer value them as above since they have fallen in price."

It is doubtful that these changes were made in the inventories merely for the satisfaction of producing an accurate profit calculation and a conservative statement of assets. It is very probable that there was present some compelling force other than a high resolve to record only the truth.

In another place we find a clue to the probable reason for the practice of taking up every possible loss. The same author² points out that the tax burden in Italian cities early in the fifteenth century was very heavy. Sometimes several levies of $\frac{1}{2}\%$ would be made in a single year besides several forced loans of 1%. These taxes were calculated on the amount of the citizen's property less certain deductions. In one example for the year 1427, the tax was assessed on a citizen's lands, investments and business capital, less an amount for debts payable, dwelling houses, etc. The author further points out that the amount of lands and investments could be determined by tax officials with considerable exactness and that therefore "endeavors to pay the lowest possible amount in taxes could be made only with reference to business capital."

Penndorf does not give the details of any method for stating business capital at a minimum. But recognizing every possible loss, even price changes, would have that

¹ Baulduin Penndorf, *Luca Pacioli*, introduction pp. 36, 37.

² Baulduin Penndorf, "The Relation of Taxation to the History of the Balance Sheet," *THE ACCOUNTING REVIEW*, Sept., 1930, D. 247.

effect. He does indicate, however, that some merchants kept two sets of records and that others retired from business rather than produce their accounts. In fact the tax burden was so heavy and tax evasion so widespread by 1458 that Italian taxation methods had to be revised.

There was therefore a good deal of incentive in the situation to bring men to seek plausible reasons for reducing the asset figures. Damage, deterioration, lower current prices, could furnish such plausible explanations.

"Cost or market" is often spoken of as a general rule of accounting. But it is to be noted that tax expediency was no more than a special condition. As such it could produce only a special rule covering special rule covering special circumstances. There is no basis in tax expediency for either a general rule of account-keeping or a general rule of reporting the results of double-entry bookkeeping.

II

Let us come a little farther down to date, down to about the time Columbus discovered America. Paciolo published the first printed text on bookkeeping in 1494. He begins his discussion with a long description of what we would now call an opening entry. He advises the merchant who desires to begin keeping systematic accounts to prepare a statement (*bilancio*) "of whatever he has in this world, personal property or real estate." Then he goes on to say that precious stones should be included "according to current prices"; for silver articles he mentions, "giving each thing its customary price." In addition to leaving us in doubt as to what prices he really means here he adds this disconcerting advice: "Make the prices rather higher than lower . . . so that you can make a larger profit."

Apparently "valuing" one's possessions at a high figure was thought to influence

the price at which they could be sold. The idea sounds very modern. Some people, I fear, still believe that a high purchase cost is a basis for a high selling price. These people are as mistaken as Paciolo was. But it is more important for the present purpose to note that this discussion of inventory treatment was about an opening entry. Clearly the assumption was that the merchant had no prior records of original costs and must therefore give the items a price. In such a situation some kind of "valuing" was inescapable if a set of books was to be opened at all. Until adequate records could make possible some other way of finding the data from which to construct an opening entry, valuing was the only method available.

In the absence of dependable records this approach must still be used. Until systematic records came into use, *valuing* the inventory was no doubt the usual case and as such was a proper base for the inventory rules which Paciolo mentions. After records are in use, however, *costing* the inventory from the records should become the usual case and valuing the inventory the exception. The center of any rule should be the typical case, not the exceptional one. At the present time a complete lack of price records or purchase invoices is so infrequent that this situation can only be a basis for an exception to a rule. The rule itself should be that pricing an inventory is basically a costing problem.

Two other items are of interest here. One of Paciolo's followers, Pietra, writing in 1586 about bookkeeping for a monastery, offers the advice in his chapter 13 that a value should be given to things harvested and things manufactured, but this value should be lower than current prices "so that the proceeds will not fall below this value in case of sale." Does this not advise pricing the inventory so there will always be a profit upon sale?

About a hundred years later (1682,

1690) an English writer, Montega, deals with livestock inventories. In one example, cows are priced in a later inventory at the same price as in the opening entry. In another example, cows are priced higher than the opening price apparently because of recent higher-priced purchases. Sheep are priced as in the opening entry; lambs unsold are priced at about 25% below the sales price received for their brothers. Both a bull and a ram are priced slightly below the opening figure. In another illustration is a Horses account bearing two credit entries, one an inventory priced at less than the opening figure—the other is a transfer to Loss and Gain, where the item is labeled “for their use and impairing.”

In these situations, besides being mixed up with depreciation, the inventories again deal with special cases. Harvested crops and the natural increase in farm animals must be priced in some expedient way if they are to enter into statement calculations as they undoubtedly should. But it may be doubted if these today represent the typical situation under which inventories are used.

Since in these cases the use of the cost-or-market rule rests partly upon situations where actual prices are lacking, I believe it is a special rule of limited significance. Such conditions no longer provide the predominant occasions for taking inventory.

III

From France we get additional clues about early practices. Under an ordinance promulgated by Louis XIV in 1673, merchants and bankers were required to keep a journal of their transactions for reference in case of dispute. They were also to have the book authenticated by the signature of a public official. In addition, as Prof. Howard points out,³ they were required to

make a statement (*inventaire*) of all their fixed and movable properties and their debts receivable and payable every two years. The French law at this point used words that are almost identical with those used by Paciolo in writing about the opening entry. That early writer's instructions about opening entries were thus reflected in European law regarding periodic financial reports. And our own courts seem to consider that the inventory, and the balance sheet, is still a valuation problem. They too are emphasizing the occasional situation, that is, the situation existing when solvency or the dividend base is in question. As a matter of fact, the usual situation is one involving the calculation of profits at the end of a fiscal period rather than solvency.

Jacques Savary, the principle author of the ordinance of 1673, published a book in 1675 entitled “Le Parfait Negociant” (*The Complete Tradesman*). In this he explained the statute and described current business practices. Among other things, he made some observations on the treatment of merchandise for inventory purposes. The reader is vaguely advised to take care not to estimate merchandise at more than it is worth. If the merchandise is newly purchased, he goes on to say, “and if one judges that it has not decreased in price at the factory . . . it should be put in at the current price.”

The author's meaning here is not clear. He was speaking of newly purchased items and the phrase “current price” could mean the actual price recently paid. Did the phrase mean that the latest invoice price was to be applied to all units still unsold although some were bought at other prices? Is it possible that the author meant the words “current price” to mean merely “book price as already recorded,” hence the actual cost price? If an item were not newly purchased, would its own cost price be used or the “current price” of similar

³ Stanley E. Howard, “Public Rules for Private Accounting in France, 1673 and 1807,” *THE ACCOUNTING REVIEW*, June 1932.

items not yet bought? We begin to wish we could call up Savary's ghost and cross-question him. His answers might also throw some light on Paciolo's use of the phrase, "current price."

But Savary's next comments seem clear enough. If the merchandise has begun to deteriorate or go out of style, he says, reduce the price considerably. He adds that you should reduce the item in the inventory accordingly if you can now get similar units at the factory for 5% less.

Savary's advice to price the inventory was not aimed at tax avoidance. Nor was there any hint that the statement was prepared for credit purposes. And it is doubtful if a man of Savary's penetration would advocate these adjustments on the theory that current replacement prices were more nearly "true" than original purchase prices.

The explanation follows other lines. The French ordinance, it will be noted, was quite general in its phrasing. It seems intended as a means of preventing falsification. The records required were to be available for use in court as evidence, but only in cases where the issues concerned rights in succession, dissolution of partnership, business failure, or property held in common by parties to a marriage contract. In these situations cost of inventory items, even if known, would not be material to the issues involved. Perhaps such legal problems furnished the principal occasion in seventeenth century France for taking inventory. But I am sure they do not do so now in America.

Additional evidence is available to show that questions of business solvency were at the basis of the inventory practices fostered by the French law. The ordinance of 1673 was the basis for a part of the Napoleonic Code of 1807. In the section dealing with books of account, four items dealt with bookkeeping rules such as authentication, making an inventory of

all property, etc., and six items dealt with the use of the records in case of litigation.

Professor Howard in the article previously mentioned has pointed out that French legal commentators have explained the relation of these rules to bankruptcy. Under the ordinance of 1673, the authenticated records would show the condition of the merchant's business at the time he became bankrupt and the antecedent conditions as well. The records would thus contribute a factual basis for a fair settlement with the creditors. If a merchant did not keep authenticated records, his bankruptcy was considered fraudulent and he was subject to the death penalty. This severity was altered in the code of 1807, but the essential use of the records in case of bankruptcy was kept. By this later code bankruptcy was fraudulent under several conditions, namely, if the merchant kept no records, if he concealed the records, or if the records did not correctly show his financial position. The penalty for fraudulent bankruptcy was at that time made a period at forced labor.

Legal regulations affecting inventories in France are thus seen to be related to frauds suffered by creditors at the hands of a bankrupt. Legal regulations affecting inventories appeared in Germany a little later, but here they were in connection with frauds suffered by stockholders at the hands of corporation promoters.

The German Commercial Code of 1897 provided, among other things, that securities and merchandise which have a price-quoting market should be valued in the balance sheet at the lower of cost or market, and that other property should be entered at cost of purchase or cost of production.⁴ This law of 1897 was a revision of the Commercial Code of 1884. The latter was the outcome of an investigation into

⁴ Joseph L. Weiner "Balance Sheet Valuation in German Law," *The Journal of Accountancy*, September, 1929.

the causes of a wave of promotion and stock speculation which began in 1870 and came to an abrupt and disastrous climax in 1873. Much of the blame was placed on prior laws. It was found that promoters and their attorneys had interpreted a phrase of the law of 1861 as permitting the use of probable sales price in stating balance-sheet assets. This enabled them to publish very attractive balance sheets and to sell vast quantities of stock on the surpluses shown.

Admittedly the code of 1861 was loosely phrased. The original draft of 1857 had proposed cost or market. But that wording was rejected as too specific and too restricting. "True value" was suggested but this was finally replaced by the phrase which went into the law: "The value which ought to be ascribed [to the item] at the date as of which the inventory and balance sheet are being drawn up." The vagueness thus deliberately written into the law was deliberately seized upon some years later to work a fraud upon security buyers.

It is easy to understand that the people would want such a law changed. It is easy to understand how a German court in 1873 was led to say that the figures in the balance sheet should not rest solely on willful individual judgment and pure surmise. It is understandable also how the law-makers, in going back over the earlier discussions, should turn again to the idea which had at first seemed too specific. Vagueness in 1861 had exacted its price; in 1884, it seemed desirable to be specific. The amended rule then written into the law was worded peculiarly but it was essentially the lower of cost or market. (Sec. 261 quoted in Weiner's article, p. 199.) As far as the effect of the law was concerned, it could as well have been cost alone. I do not know the reasons which prompted the Prussian representatives to make the original suggestion of cost or market to the conference in 1857. Prob-

ably they were merely following leads from the Napoleonic Code of 1807 and Savary's *Complete Tradesman* of 1675. Savary's book appeared in a German translation the next year.⁶

Both the French code and the German code were clearly designed to deal with inventory pricing. In both cases, however, it was with the intent of narrowing the opportunities for fraud. That is indeed a proper functioning of society's legal machinery; and lawmakers are justified in using such devices as appeal to them as appropriate. But it does not follow that accountants should give the resulting rule of law the status of a general rule of accounting. Unless accounting is considered to be a legal instrumentality, this use of inventory pricing could hardly be expected to produce an accounting rule. All that we have here is a special rule applicable to special circumstances.

In retrospect then we find convenience and expediency playing the major role in the early appearances of the cost-or-market rule. Sometimes, as in France and Germany, the rule was associated with the desire of lawmakers to narrow the opportunities for fraud. Sometimes, as in Italy, the rule seems associated with the hope of reducing the effect of a heavy tax. Surely fraudulent insolvency and tax expediency are not the predominant situations out of which a general accounting rule should grow. If these two cases represent infrequent and exceptional situations, they can only produce a special rule, that is, a rule which at best constitutes merely an exception to a general rule.

Agricultural inventories, opening entries and a few other situations also call for inventories on a noncost basis. But these situations no longer predominate. An inventory rule based upon them can no longer be called a general rule, even if once

⁶ Jaeger, *Beiträge Zur Geschichte der Doppelbuchhaltung*, p. 171.

it could. It now would not cover a large enough portion of the cases calling for an inventory rule to make it a general rule.

If we must have a cost-or-market rule for special situations—and I do not concede that we need it even there—or if we must have a rule about valuing the inventory items when cost is unknowable, those rules should be made unmistakably secondary to the primary rule of inventories,

and that rule should be that inventories should generally be priced at cost on a first-in, first-out basis. That rule has no mingled bloodlines to weaken its character; that rule does not come out of a single-entry conception of financial statements. That rule alone can show that the balance of a goods account has the same accounting characteristics as the balance of a cash account has.

REFLECTIONS OF TWENTY-FIVE YEARS IN THE AMERICAN ACCOUNTING ASSOCIATION

H. T. SCOVILL

As I participate in this, the twenty-fifth annual convention of the American Accounting Association, and realize that it has been my good fortune to attend all of the twenty-five meetings that have been held including, of course, the first formal session in 1916 at Columbus, Ohio, a number of questions arise in my mind. First, a general one. Would anyone be foolish enough to leave his home and family on Christmas day, or within twenty-four hours thereafter, every year for twenty-five years and take a long trip to be gone until about New Year's eve unless it were required by the nature of his business or unless he were to receive compensation therefor? If it were further observed that the home life of such individual was a most happy and congenial one, would it not seem even more surprising? And if during that twenty-five years there were three children growing up to make the holiday season especially significant, would it not seem that one would be most unusual not to remain near the home fire-side to assist in the effective operation of electric tains, tinker toys and other devices intended for the entertainment of

youth and the enlightenment of adults?

Furthermore, if there were much professional work to be looked after incidental to the closing of fiscal year ends and relative to regular administrative and academic duties would not one be expected to stay at his job instead of "running around the country"?

And lastly, if one were to pay his own expenses, without reimbursement, for all such twenty-five annual trips and those expenses amounted to over \$2,000 in the aggregate, would one not be a proper subject for the psychiatrist?

All of these questions imply the facts in this case. We have missed many pleasant days at home, we have neglected our work, we have spent without reimbursement over \$2,000 in attending these annual meetings, eleven of which have been on the Atlantic seaboard and six in Pittsburgh, Columbus, Cincinnati, Cleveland, and Detroit.

If one has spent Christmas week away from home for twenty-five years in spite of the good reasons he might have had for remaining at home, is he just a poor judge of values, or can it be that there were some

attractions or interests which exerted an influence more powerful than the ones, which at first glance seem strong enough to have kept a normal person at home? What sort of interests or experiences could there be at such meetings of accountants to cause one to defy the laws of domestic tranquillity? Some members might be unkind enough to suggest that like the sailor he has a girl in every port, and others might say that one with such a record is just a fool for punishment. We admit there have been some very dry moments in some of the sessions, when it seemed necessary to exercise a maximum of self discipline. At times we had to seek relief in the hallways or the great out of doors in order to ponder over the serious problems and proposals made by the learned authors of some papers which were read.

The truth of the matter is that through the span of years we have considered the intangible values derived from these meetings as great enough to justify the personal detriments incurred in attending them. These intangible values have assumed several forms.

1. Mental stimulation on many topics.
2. Suggestions on courses and contents.
3. Ideas relative to the administration of the department with which I have been connected during the entire period.
4. Meeting and exchanging ideas with men from other institutions.
5. Attending meetings of allied associations.
6. Greeting and conversing with former students and colleagues. (Of the 937 members of the Association on December 31, 1939, 80 or about 1/12 of the total were formerly, or are still, at the University of Illinois.)

President MacFarland has suggested that I speak tonight on "Reflections of Twenty-five Years." This ought to be easy to do, because it does not require the accuracy and thoroughness of the historian

on the one hand nor does it permit of complete poetic license on the other. When one attempts, however, to pick out the high spots of twenty-five annual meetings, including scholarly and other dissertations, fiery business sessions, intriguing political trends, personal contacts, and post-mortem discussions one surely does have a job on his hands. Like the umpire, however, I shall attempt to "call them as I see them" in bringing to your attention some of the significant events of the twenty-five meetings. Here they are.

The first thrill was in December 1916 in meeting at the Deschler Hotel in Columbus with others engaged in accounting instruction and discussing problems of mutual interest. John Wildman, John Treleven (who died about two years later), F. H. Elwell, David Friday, Donald English, David Himmelblau, Earl Saliers, John Bauer, C. C. Huntington, and M. J. Shugrue were some who participated in the discussions. Wildman was elected president of the American Association of University Instructors in Accounting for the ensuing year, and Elwell secretary and treasurer. A constitution was adopted. Naturally those present were interested in comparing notes on accounting course contents, methods of instruction and similar problems because accounting was a subject which was just beginning to feel the effects of the emphasis placed on accounting in business by the enactment of the Income Tax Law in 1913. Problems of organization and instruction were many, and satisfactory texts were few. Qualified instructors were also scarce. Most of us were interested in some degree of correlation with high schools and of standardization of courses in universities and colleges. Consequently the first two standing committees created were on correlation and standardization.

At the second meeting in Philadelphia in December 1917 the attendance was

small as a result of war and extremely cold weather. A few formal papers were presented but most of the time was spent in conferences on the mezzanine floor of the Adelphia or in other secluded spots. It was truly a meeting for exchange of ideas in a most wonderful manner. Two men not present at the first meeting helped enliven the discussion, as they have on numerous occasions in later years. I refer to John Madden, of New York University, and William A. Paton, of Michigan. Elwell was elected president and your speaker secretary-treasurer. It was felt by some that the Association must have been neglectful of its advertising because no one was present from the University of Pennsylvania, only a few blocks away.

In December 1918 the S.A.T.C. days were in effect and some members of the instructors' organization were still in Washington serving in governmental capacities. Therefore, the meeting in Richmond, Virginia, was very poorly attended. Again the chief occupation consisted of sitting around the lobby or in the room of one of the members settling all the problems of the commercial academic world. Nearly all the technical sessions were scheduled as joint affairs with the American Economic Association. The only one held exclusively by the accountants was one addressed by Clinton H. Scovell on Interest on Investment as Cost. Mr. Scovell had defended for several years his thesis that interest on capital investment is an element of cost of production. His talk before the small group at Richmond was one of the best he ever presented on the subject. F. H. Elwell and I appreciated very greatly the opportunity of chatting with Mr. Scovell informally several hours one evening, and hearing the latter's philosophy of life as applied to college graduates, and the accounting profession.

One event at the Richmond meeting stands out in my mind as one of the most

far reaching events in the twenty-five year history of the Association. I refer to the dinner attended by all twelve members of the Association who were in Richmond for the sessions. This affair was held in a private dining room in Mrs. Murphy's cafe. I do not recall who constituted the other two, but nine of the twelve were H. R. Hatfield, F. H. Elwell, John Wildman, John Madden, David Himmelblau, William A. Paton, G. H. Newlove, William Deviny, Spurgeon Bell, and myself. The friendships formed at that meeting helped keep alive the spark which permitted the American Association of University Instructors in Accounting to live. Without such a dinner meeting it is likely that the young association might have died a natural death or at least remained in a coma for several years following two such meagerly attended meetings as those at Philadelphia in 1917 and Richmond in 1918. Henry Rand Hatfield was elected president while the secretary-treasurer succeeded himself.

The 1919 meeting in Chicago witnessed a strong recovery on the part of the infant organization. Fifteen formal papers were presented. The attendance was excellent, and it was evident from all viewpoints that the Association was destined to become an important factor in accounting and accounting education. Some of those who were on the program of the Association for the first time, and whose names appeared also in several later issues of the proceedings are Arthur Andersen, E. L. Kohler, W. B. Castenholz, C. F. Rittenhouse, J. O. McKinsey, R. A. Stevenson, Spurgeon Bell, Lloyd Morey and H. T. Scovill. At one of the sessions William Deviny presented the first issue of a regular magazine of the Association. It was called the *Journal of Accountants* and was prepared as a result of a suggestion made by the secretary at the Richmond meeting that the Association undertake to publish probably

in mimeographed form at first, such articles as might appear to be of interest to accounting instructors. Mr. Deviny had served as chairman of the committee on publication during the year. The unusual feature of Mr. Deviny's publication was that although it was of regulation size, about $\frac{3}{8}$ " thick, and had an attractive paper cover revealing the names of several, interesting topics and the authors thereof there was nothing between the front and back covers except about 60 blank pages. Mr. Deviny, therefore, presented rather vividly in blank verse the possibilities of a regular publication. The officers of the Association apparently were so overcome by the prospects for such a magazine that complete recovery was not announced until four years later when the question of a regular magazine was again presented. William A. Paton was elected secretary-treasurer when his predecessor was promoted to the presidency.

Continuing the healthy growth of the preceding year, the Association had another excellent meeting in Atlantic City in 1920. Some of those on the program for the first time and who were later to assume important roles in the life of the organization were: E. J. Filbey, R. B. Kester, G. A. MacFarland, and H. R. Hatfield. John Madden was elected president and E. J. Filbey secretary-treasurer.

After the meeting of 1920, the young Association continued to grow both in stature and in wisdom without any unusual situations to mar its record or impede its progress. New faces continued to appear on the programs while some who appeared in earlier years assumed the role of repeaters. In 1921, some who had not participated previously, but who thereafter became very active in the affairs of the Association were J. R. Wildman, J. Hugh Jackson, T. H. Sanders, W. A. Paton and A. H. Rosenkamppf. Other future-greats accepted invitations to make initial ap-

pearances by reading formal papers before the Association in 1922. These included A. C. Littleton, J. H. Bliss, R. G. Walker, H. F. Taggart, and C. F. Schlatter. Still others came in 1923 for their first venture before the critical membership of this fast growing organization. At that time Howard C. Greer made his debut along with Paul W. Pinkerton, Homer Pace, and Harold Dudley Greeley. E. L. Kohler and J. O. McKinsey both appeared for the third time within the last five years, while Henry Rand Hatfield, appearing for the second time, pleased the group with his famous speech entitled, "An Historical Defense of Accounting."

It was in 1923 also that the Association first departed from the precedent of meeting in the same city with the American Economic Association. The latter met in Washington, D. C., while we met in Columbus, Ohio. The only other time we have not met with the economists is this year when our executive committee selected Chicago rather than New Orleans. William A. Paton of Michigan was elected president at the 1921 session and C. F. Rittenhouse of Boston at the 1922 meeting.

The years 1923, 1924 and 1925 were marked by severe growing pains. It seemed at times as if the youngster were about to grow out of everything. With considerable prodding by such staunch supporters and critics as E. L. Kohler, William A. Paton, Howard C. Greer, and some others less active than they, the Association began to feel that it needed a complete examination in the clinic of educational perspective. The name needed changing, the dues required raising, the constitution demanded overhauling, the youth had to have a new objective to justify his existence, and it seemed necessary to have a publication which would permit him to express himself before the world four times a year rather than only once.

The thought-provoking discussion that lasted through three annual meetings had its initial public appearance at the Columbus meeting in 1923 when a long and heated discussion on the publication question occupied several hours at the dinner business session. A publishing house had offered to publish literary contributions by members of the Association in a magazine which was to bear an appropriate title. Some favored this plan while some members felt that the Association should publish its own magazine and still others thought that neither proposal should be adopted. This debate furnished one of the outstanding events of the twenty-five year period. I refer to the remarkable defense put up by J. O. McKinsey in favor of the publishing company's proposal. He sat in the middle of the dining room, meeting a large variety of arguments with a poise that won the admiration of all. Time after time, he met sarcastic retorts with a calmness that was amazing. McKinsey, by the way, was elected president at the close of the session. Finally a committee was appointed to study the publication matter and report at the 1924 meeting. McKinsey and I rode to Cincinnati together on the late evening train and spent the entire time discussing plans and prospects for the proposed publication.

With McKinsey in the president's chair at Chicago in 1924, the fireworks again boomed on several matters. When the smoke had cleared away, the Association was authorized to issue a magazine to contain scholarly articles in addition to those appearing in the regular proceedings of the annual meeting, to raise the dues from \$3.00 to \$5.00 a year effective a year hence after the magazine was begun and to change the objects of the Association, but it was not authorized to change the name of the Association. R. B. Kester of Columbia was elected president in 1924 and E. J. Filbey of Illinois in 1925. Howard C.

Greer, then of Ohio State, succeeded the latter as secretary-treasurer.

The new publication appeared on time as authorized on December 1, 1925 and was designated as "Publication of A.A. U.I.A. Volume IX, No. 2," with William A. Paton as editor.

After much discussion at the 1925 New York meeting it was voted to establish a quarterly magazine to be known as the *ACCOUNTING REVIEW*. Volume I, Number 1, of this new publication appeared in March 1926. It has been published quarterly since that time. The dues were increased only to \$4.00 instead of \$5.00 and a few other slight modifications were made in the constitution. Another attempt was made to change the name of the Association but it was unsuccessful. In order to effect the changes made in 1923, 1924, and 1925 much inside political maneuvering was necessary but it was effectively carried out by the men mentioned previously as looking after the growing pains of the youngster.

Two future presidents of the Association, David Himmelblau and James L. Dohr, made their maiden appearances on the formal program in Chicago in 1924, while another, William S. Krebs, made his first and only one in 1925, at the New York meeting. The latter was elected president at the 1926 meeting in St. Louis.

After the growing organization had been nursed through the period of growing pains, the necessary adjustments had been made in his normal life, and he had been given the opportunity to speak to the outside world on a quarterly basis, the annual meetings seemed rather uneventful for several years. Three future presidents, H. S. Noble, S. G. Winter and J. B. Taylor made auspicious debuts on the formal program in 1926, the latter coming to the convention from North Dakota to tell about "Phases of North Dakota's Experiment in Flour Mill Operation."

For each of the next several years the gayety of the annual dinner session was augmented by the awarding of Beta Alpha Psi awards to Hatfield, Wildman, and Powell, J. B. Canning, W. B. Castenholz, and A. P. Richardson. In 1928 E. A. Heilman received his initiation as a speaker on the program, just nine years before he became president, while in 1930 G. H. Newlove appeared similarly only two years before his election to the presidency. J. Hugh Jackson of Harvard was elected president in 1927, David Himmelblau of Northwestern in 1928, A. H. Rosenkampff of New York University in 1929 and R. A. Stevenson of Minnesota in 1930, while C. F. Schlatter of Illinois succeeded H. C. Greer as secretary in 1929.

Without much debate the constitution was changed in 1929 to the effect that "Dues shall not exceed \$5.00." Throughout these years the usual audits were made of the treasurer's books, and the early years of the depression showed the effect of the cost of the quarterly magazine on the treasury when the treasurer reported in 1930 that there was 47¢ in the treasury.

The ever present movement by some members to change the name of the Association at various times during the last 10 or 12 years was again brought before the business session in 1931, but the vote was against the change.

Immediately after his election to the presidency in 1931 Howard C. Greer appointed a small group of members to constitute the Council on Accounting Research. This Council existed for several years, but was unable to function effectively because of lack of funds, in spite of a \$100 appropriation voted to it by the Association at the 1932 annual meeting, at which G. H. Newlove of Texas was elected president.

Aside from the election of Dohr and Noble respectively as presidents, nothing very exciting happened at the sessions of

1933 and 1934 except some rumors of proposed changes in the adolescent youthful organization which was in its 18th year. It was a very appropriate age for pressing some longing desires to become greater and to branch out into other fields and do great things. Probably there was some foreboding of this action in 1933 when a resolution was adopted as presented by the resolutions committee approving the ratification by the Senate of the United States of the "1928 Rome Convention for the Protection of Literary and Artistic Works."

Just as the growing pains of 1923, 1924 and 1925 had to be recognized when presented to the Association by some experts in child development, so the demands of the adolescent in 1934 were recognized by the same experts and brought to the attention of the Association members who had the power to relieve the situation. They were ably supported by H. T. Chamberlain who favored the Association with his first formal paper before the group. The relief as finally voted after months of planning and hours of preliminary conferences consisted of changing the name of the Association, creating a new set of objectives, setting up a new constitution, and throwing the active membership privileges open to all accountants instead of only university and college instructors as formerly.

E. L. Kohler was elected the first president of the new organization and J. B. Taylor secretary-treasurer. The ACCOUNTING REVIEW was continued under the editorship of E. L. Kohler. During the next two years, the meetings of the Association were enlivened by discussions of accounting principles. The executive committee of the Association had spent a great deal of time on the formulation of accounting principles recognizing that there was a need for greater uniformity of thought on many points. The tentative statement of accounting principles formulated by the

executive committee constituted an important topic at one or more formal sessions in 1936, at the end of which J. B. Taylor was elected president.

At the 1937 convention the executive committee presented through Editor E. L. Kohler the results of its deliberations on "A Tentative Statement of Accounting Principles Underlying Consolidated Reports." Those members of the executive committee and some others who had worked hard on the Tentative Statement of Accounting Principles were sorely vexed to say the least, by the unannounced appearance in 1937 of *A Statement of Accounting Principles* by Sanders, Hatfield and Moore. As the word came to our ears from one source or another, the idea prevailed that the American Institute of Accountants prompted the latter publication and urged its hasty completion so that the Tentative Statement of Accounting Principles would not have the prestige which it might otherwise obtain. Some very harsh words were used in describing the attitude of the Council of the Institute as one of jealousy. On the other hand, it is likely that some practitioners in the Institute referred to the Tentative Statement of Accounting Principles as the attempt of some pedagogues to tell the profession what it ought to do. It seemed to an innocent bystander that the points of view of the executive committee of the American Accounting Association and the Council of the Institute could be easily reconciled. Your present speaker had this in mind when on being asked to prepare a discussion after arriving at the hotel for the 1937 meeting he consented and then heard much of the invective to which reference has just been made. In the discussion we said, "Some one has said that the majority of our social problems would be solved with ease if no one ever cared who got the credit for initiating or carrying out a movement. It is likely that the far reaching

effect on social problems which we see for the adoption of accounting principles underlying consolidated reports might be delayed or retarded because of the same issue. If accountants and accounting groups will recognize the value of making a start toward the adoption of some principles and give no thought as to who might receive credit or who ought to receive credit, much can be accomplished in a short time. It is our hope that all accountants will recognize the great faith that is being placed in accountants in the present age and not permit selfish interests to interfere with that progress."

After the 1937 meeting which was held in Atlantic City, at which Heilman ascended to the presidency, steps were taken to reconcile the differences between the two small groups in each organization who thought they should be given the most recognition in certain matters. By the time of the 1939 meeting in Philadelphia, two years later, considerable progress had been made in reconciling the points of view of the two groups. S. G. Winter was elected president in 1938 and G. A. MacFarland in 1939, among others, represented our Association. The action of the Institute in sponsoring the publication of *Corporate Accounting Standards* by Paton and Littleton, Research Directors of the American Accounting Association, was probably an important element in the adjustment of differences.

In the meeting of 1937 appropriate resolutions were adopted mourning the loss of the Association in the death of J. O. McKinsey who served during 1924 as the eighth president of the Association. Similar action was taken in 1938 on the death of John R. Wildman who served as the first president in 1917. With the exception of these two men, who were influential in shaping the policies of the Association, all who have held elective offices in the Association are still alive.

It has been very interesting to watch the growth of this organization through twenty-five annual meetings. Aside from being secretary-treasurer during the second and third years and president during the fourth year of its existence, it has been my pleasure to serve on numerous committees and to appear on the formal programs on several occasions. The incidents cited so far would probably have justified my attending all twenty-five of these conventions without considering the scores of excellent papers presented on accounting and allied topics. We have heard many treatises on course contents, teaching methods, curriculum building, specialized courses, survey courses, graduate courses, master's theses, accounting in foreign countries, historical aspects of accounting, laboratory method, case method, transfer students, selection of staff, outside practice by staff members, and so on. As new members become affiliated with the Association it was natural that there should be a demand for a repetition of subjects affecting the content of courses, teaching methods and general pedagogical problems. Accordingly, we have heard a large variety of ideas from time to time on some of these topics. A number of papers have been read on governmental accounting subjects, income taxes, and hospital accounting. Some very good ideas have been presented on research projects and programs. We have heard scores of authors and near-authors of textbooks give what appeared to be previews of their respective masterpieces. A new face on the program frequently meant the author of a new book. I am sorry to say I have not read all the books, but a number of them have appealed to me as well worth while. Scores of articles on accounting theory in its various aspects have been read before the Association. During the first ten years it was common to hear speeches on coöperation with some professional organization, especially

the N.A.C.A., the American Society of C.P.A.'s, and the American Institute of Accountants and its Bureau for Placements.

It was amusing occasionally to hear the author of a paper on accounting theory expostulate on some pet idea from a point of view exactly opposite to that which he defended just as vehemently ten years before, and which some of us told him at the time was unjustifiable. That is one way to get in print, however, once in advocating a point of view and once in criticizing, several years later, those who might possibly still hold that point of view after the author has forsaken it.

Then, too, we have had to listen to many papers prepared with more or less care or abandon by those who did not desire to put much time and effort on the manuscript, but who found it necessary according to the policy of their institution, to appear on the program if they expected to have their expenses reimbursed for the trip.

The annual conventions of the American Association of University Instructors in Accounting and of its successor, the American Accounting Association, have been serious business and technical affairs. No social events or special entertainment features have ever been planned, either for members or their wives. Accordingly, the attendance of women has been very small. The seriousness of the occasions has probably resulted in a larger per cent of attendance at individual sessions of those registered for the convention than is the case with many other conventions. There has not been much relaxation in the form of private parties either in prohibition or post-prohibition days, although we have heard rumors that such events have been held. Probably they have been sponsored by members of some allied association meeting in the same hotel; and that any accountants present were merely assigned to make an independent verification of in-

ventory, or confirmation of its quality.

In general, the Association has justified its existence, in providing a medium for exchange of ideas, for advocating and supporting strong policies and principles to guide business in its accounting procedures and in promoting sound educational ideas in a field that is most important to the future of business and government.

The years 1916 to 1940 inclusive have been the most interesting in the history of accounting. They have witnessed the greatest development in accounting techniques and interpretation. New problems have arisen annually to tax the ingenuity of accountants. Complex business organizations, tax laws, and governmental procedures have caused accountants to assume important roles and to wrestle with new and complicated issues. Those engaged in educational work who have formed the backbone of this organization have been especially fortunate to have chosen a field offering such opportunities. This has been a young man's organization almost from the very beginning, but it is showing some signs of recognizing maturity. It no longer is satisfied with thirty-two and thirty-four year old presidents

which it had in the early years in the persons of Elwell, Paton and Scovill. It has grown up, after surviving satisfactorily the period of rapid growth and that of adolescence. Personally, it has been most interesting and pleasant to have associated with the officers and other members over a period of twenty-five years of most unique development of a worth while and essential field of knowledge.

If we had attempted to prophecy in 1916 what difficulties would have been surmounted and what heights attained in this field we should have fallen far short of the actual facts. Similarly, it seems likely that any prophecy we might make now would fall short. The literature of the subject, the availability of adequate preparation for instructors and practitioners and the continued necessity for such preparation seem to be sufficient to spur us on to greater accomplishments. We hope the next twenty-five years will have as able, sincere and loyal leaders in the field as the last twenty-five and that accountants and accounting instructors will continue to make their presence felt as vital elements in the betterment of business, society and government.

INVENTORIES: FROM FETISH TO CREED

EDWARD A. KRACKE

TO THE student of history, there is hardly a more interesting phase for study than the transition from early days of fetish-worshipping to later years of creed-formulation; when mere blind belief, the sole support of fetish, gives way to reasoning, or at least attempts at reasoning which develop into creed. Somewhat analogous, it seems to me, is our present transitional period in accounting thought, in which we are critically analyzing certain conventions which are at least

suggestive of fetishes, in our struggle to formulate a creed called "Accepted Principles." And, as in history, transition takes time; ready-made decalogues are not the rule.

Our discussion today has to do with one of the episodes in that transition—the tentative pronouncement on Inventories by the Research Department of the American Institute of Accountants, a document which is one of the steps in the story of creed-formulation in respect to invento-

ries; and inventories constitute a subject which certainly has not been free of fetishes. From this standpoint, I have made my own epitome of the pronouncement, in the form of a "credo," with its "fundamental articles of faith," and a supporting "catechism" of detailed instructions for the guidance of conduct in practice.

As I have thus abstracted these "articles of faith," they set forth my interpretation of the pronouncement, but not entirely my own tenets, for as to two of those articles (as I have worded them) I am an apostate. I am, however, heartily in sympathy with the prevailing spirit of accounting reformation of which this document is symbolic and I realize that as a tentative pronouncement only it invites the criticism of those who seek to have the articles in a final form acceptable for their own adherence to them.

Now the articles of the propounded "credo," as I understand them, would be about as follows:

First: Of the two primary financial statements with which accounting principles deal, the income statement is generally more important than the balance sheet, although sometimes the reverse is true; and this fact must be given weight in our deliberations concerning the valuation of inventories.

Second: Cost is the basis for valuing inventories. This does not mean, however, that the cost of goods purchased or produced should necessarily be spread between those sold and those still on hand on a uniform or average prorate basis. In many cases, but not in all cases, market conditions may require some proper weighting factor to be applied in the allocation of total costs between the respective periods of sale.

Third: In those cases where such weighting factor may be thus required in the interperiod distribution of total costs, any proportionately lighter charge attaches to

the value of goods carried forward as inventory to the ensuing period. In other words, cost as applied to the inventory may be subjected to a downward, but not an upward, adjustment. ("Appreciation in market values of inventories over cost is not reflected in financial statements.")

Fourth: In these cases, this adjustment represents—and is restricted to—the estimated loss on subsequent realization which, having originated in the elapsed period, would be unfairly borne by the ensuing period.

Fifth: This adjustment, called an adjustment to "market," is measured thus:

- (1) Primarily by prices in the selling market of the goods
- (2) In lieu of such prices, by the present purchase or replacement cost of:
 - (a) Merchandise (for the merchant)
 - (b) Raw materials and raw material content of finished and in-process goods (for the manufacturer)
- (3) By reproduction costs, as to labor and burden elements in finished and in-process goods (for the manufacturer)

The supplemental "catechism," as I have arranged it, has to do with three main divisions—Cost Procedures, Market Procedures, and Cost Finding Methods—with their component items as follows:

Cost Procedures:

- (1) Specific identification
- (2) First-in, first-out
- (3) Average cost
- (4) Base stock
- (5) Last-in, first-out

Market Procedures:

- (1) By items or in aggregate
- (2) Reserve method
- (3) Reserves for future price declines
- (4) Repossessed goods
- (5) Commitments

Cost Finding Methods:

- (1) Manufacturing cost
- (2) Standard cost
- (3) Special trades and industries:
 - (a) Selling values
 - (b) Joint-product industries
 - (c) Retail method
- (4) Consolidation elimination

To begin my "exegesis" of the creed itself.

No one will have any difficulty in subscribing wholeheartedly to the first article's recognition of the generally greater importance of the income statement. I am glad nevertheless that a kindly word was spoken for the balance sheet, which in our latter-day extolling of the income statement has often been spoken of too disparagingly. Of course, each of the two has its own vital, and different, function; and that difference of function itself makes comparison illogical, if not odious. The pronouncement deals fairly with these two differing viewpoints.

But what I would particularly like to see added is that the emphasis laid on the income statement comes from the underlying concept that the income statement which is involved is the income statement of a "going concern," as distinguished from a "liquidating concern." This, it seems to me, is a most important thing to stress, for that "going concern" concept has somewhat suffered eclipse in the propounded "Loss on Realization" treatment. It is this "Loss of Realization" theory comprised in the fourth article, and its development in the exposition of the "Meaning of Market" in the fifth article of the "credo" with which I find myself unable to agree.

Harking back as far as our memories of "cost or market" will take us—and regardless of whether that formula should or should not have been applied in all cases where it was in fact applied, but limiting

discussion to the meaning of the formula itself—I think we will agree that in numberless cases of simple merchandising concerns its application was definitely on the basis of replacement cost. If the current purchase invoices of the merchant indicated that he could replace the goods at a lower value than their recorded cost, that lower value—rightly or wrongly, logically or illogically—was the value which general practice used for the inventory. That valuation has been the historical interpretation of the "cost or market" formula wherever it was applied over the years in the case of the merchant and also for raw materials, in the case of the manufacturer. I am excepting, of course, cases like those where, with the growing use of the so-called "retail method," the use of purchase invoices for this purpose was precluded.

Now, I will admit that in those earlier days we did not seek to rationalize this procedure by expressly relating it to any specifically propounded theory of the "going concern" in this connection, but the fact remains that business *did*, in all these cases, apply replacement cost in full consciousness of the fact that the inventory values as thus written down permitted of a subsequent realization of a selling profit, on that written-down basis.

This is not saying by any means that any expressly calculated prospective sales profit was deliberately included in the computations made; it might be that competitive conditions might produce only an even break, or even a loss, but the idea of a possible, or even probable profit was in any event not precluded. The write-down merely permitted that business to enter upon its new year with an operating outlook at least as favorable as that enjoyed by, say, a new competitor just entering the lists at that time, and this, again, I hold to be of the essence of the "going concern" concept.

If the "loss on realization" theory of the pronouncement were strictly to be followed, the merchant engaged in a business whose nature compelled him to take market declines into account, would no longer write down to his current purchase invoice price—that is, replacement cost—but would be compelled to make some hair-splitting conjectures, in order to arrive at a point possibly only part way down to that replacement cost, so as to land in a theoretical position where he might achieve an even break, but no profit on the sale of those goods in the ensuing period.

An exception is contemplated in the case of repossessed goods, in which a prospective profit on the written-down basis is deemed proper. Why an exception? I do not question the proposed basis, but I do question the making of an exception for this category. In those businesses which have to do with repossessions, the trade in them generally is an important auxiliary activity, necessary to the main line. As an important auxiliary, it naturally is also to be viewed from the "going concern" standpoint, entitled to go into its succeeding period on an operating, not just a liquidating, basis. I find no difficulty in accepting this status for the repossessions business, as contrasted, for example, with the handling of scrap, which generally is accorded a net realization value treatment; for scrap represents usually an altogether incidental, not auxiliary, activity. But auxiliary and main line in this respect appear to me to be very much of a "sauce for goose, sauce for gander" similarity; the "going concern" concept should govern both alike.

This brings me to my disagreement with the fifth article, wherein replacement cost is relegated to a position subaltern to selling market which is awarded the place of "primary yardstick," with replacement cost being merely condoned in the pronouncement "since the actual values at

which goods will be realized are not known at the inventory date." To my mind, the cart here is before the horse. Viewing, as many of us do, replacement cost as the true "going concern" yardstick, selling market is rather a further, more or less emergency, yardstick; for it is fairly generally the case that only in distress times will the selling-market yardstick measure a value lower than replacement cost, at a time where such a "liquidating concern" safety-valve has to function, to preserve the "going concern" status. But to regard replacement cost only as a makeshift substitute for an unknown and unknowable selling market makes of the latter more of a weak reed than a primary yardstick. It is to be admitted, of course, that if the "loss on realization" concept is valid, then selling market would be the yardstick.

Purely incidentally, by the way, I should like to remark that I find it difficult to appreciate the differentiation made between replacement cost and reproduction cost; to me the former term may easily and well include and take over the latter. In real essence, there is here almost a case of distinction without a difference.

I am strongly tempted to clarify this opposition to the "loss on realization" theory with an example, but I am also mindful that people often decry examples as oversimplifying a situation because they do not contain all the minutiae of everyday life—as if there were any point in purposely permitting extraneous details to becloud the clear view one is after. But I have found a way out. So with a latitude, even unto preposterousness, which the fable permits, let me tell you my fable about the apple merchant who, having bought a shipment of very fine apples at an attractive price, went to his bank for a loan to finance the purchase. The banker wanted to see a budget plan, for assurance about getting his money back. According-

ly, the merchant called in his accountant and said to him:

"Please prepare for me a budget covering this shipment of apples. These are the facts. The shipment is rather large for me to swing, but I have a 'quality' trade and these apples are so fine and the price so attractive that I decided to make the purchase, even despite my fear of a drop in my wholesale market by the end of my fiscal year when I will probably have sold only one-half of the lot. Now my sales price to my customers closely follows my wholesale market, up and down, and I run my business on an expected profit margin of about a dollar a barrel, but if the market drop materializes, as it may, I shall be content in the circumstances with a shading of this margin.

"Now, you will have to spread this budget plan over about four months, the time I shall need to dispose of the shipment. My fiscal year ends in the middle of this period, when my loan also is to mature, but the banker says he will give me a renewal if he is satisfied with my financial statements at that time."

"Very well," replied his accountant, "from the data given I can prepare a budget plan, after you give me some idea about the market drop, which affects the sales price to your customers and your selling margin, for I propose to spread the purchase price of the shipment, not by a straight average per barrel but by a properly weighted average in order to take the selling margin factor into account. Not only is this conservative and proper budgeting procedure but, as to thus spreading the purchase cost of apples," continued the accountant, "it is part and parcel of the underlying spirit (though, of course, not of the form) of what the American Institute of Accountants, for example, approves in its inventory pronouncement for 'Joint Product Industries'."

Now, as was feared, the market drop

came to pass at the year's end, when the accountant also prepared the financial statements for the banker who, on studying them, said to the merchant, "I see you made more money than I expected from your budget—but is there not something wrong here—how about your inventory?"

"Let me explain that," answered the merchant, "my accountant, in preparing my budget, spread the cost of the apples on a basis to take my ordinary selling margin into account, but he says that for my financial statements I must inventory my apples at purchase cost, and no lower, since my new selling price (which represents replacement cost plus my margin thereon) will just make me break even in the new year. My accountant says no inventory adjustment is in order, since there will be no 'loss on realization,' so you see I have already made all the profit I shall make on the whole shipment and I shall be operating the next few months without profit."

To which the banker made reply, "That being the case, for future loans show me your budgets; how can I have confidence in your financial statements?"

But while I am in a mood for fables, let me add a short sequel.

One of the apple merchant's customers ran a chain of cider booths, at which cider was sold to the public for 5 cents a glass, a price, as in the case of carfare, cigarettes, beer, and frankfurter sandwiches, was about as near to being an invariable thing as could be, for any attempted increase might be highly prejudicial to volume. The cider man, liking the flavor of the particular apples we have been talking about and being desirous of insuring an adequate supply of such satisfactory raw material, made a sizable purchase when the shipment first arrived—enough, in fact, to last him well into the new year, although the honest apple merchant had warned him that the price might possibly go down in

the next year. The cider man, however, reasoned that if he made a smaller present purchase he might possibly have to content himself in that event with less delicious apples of a different shipment in the new year. So he concluded that, with a continuing unchanged cider price of 5 cents a glass, the present price of apples was good business. In fact, since he wanted to safeguard the quality of his cider, he was content to regard his waiving the chance of a lower apple price as the cost of an insurance hedge against a higher apple price, which might make 5-cent cider unprofitable.

Now at the end of the year, when he took inventory, he found the market had indeed dropped, but when his accountant (who was not the apple merchant's accountant) wanted the inventory written down, the cider man replied, "Why should I, when my price for cider won't change? Any such write-down would artificially understate my profits in the old year and correspondingly overstate them in the new year."

Now, beside its moral about the "going concern" aspect of the "Loss on Realization" theory, the apple fable also, with its cider sequel, illustrates, it seems to me, an essential distinguishing characteristic between the "cost or market" basis industry and the "cost only" basis industry.

Is not this the real common meeting ground of our two divergent schools of accounting thought?

Now for the "catechism," as to which I shall restrict my remarks to "Cost Procedures" and "Market Procedures." Not that the subjects I have grouped under "Cost Finding Methods" are not important—for they are. But with the time at disposal, I wish particularly to pursue the interrelated cost and market phases of our subject.

And since the "cost only" man enjoys comparative simplicity of problems, I

should like to pass briefly over his case, in order to reach our real problem—the "cost or market" man.

For the "cost only" man, such cost procedures as "base stock" and "last-in, first-out" have no applicability; in instances he may follow specific identification, but perhaps more often a "first-in, first-out" or an "average cost" procedure will answer his needs. Market-adjustment procedures should interest him usually only from the "balance-sheet" point of view; and that being the case, the reserve method, through a provision made from surplus, based on market differences in the aggregate rather than by items, would seem to me to be, generally speaking, the reasonable treatment in his case.

Coming now to the category where sales operations are actively influenced by, or have an affinity with, replacement costs, let me first consider the group of those who, having this phenomenon in a rather acute degree—because of the relative quickness of it, or because of a slow turnover, or because of a combination of these factors—have done something about it to remedy the market distortion of their earnings.

In this group there are those with whom the exact accounting procedure is perhaps of somewhat minor importance because they have an operating solution through effectively hedging their operations in a way whereby their real inventory position may be said to be "balanced out." Others in this group have sought to attain a true matching of revenue with related costs by the adoption of the "last-in, first-out" procedure. Still others, with whom that procedure of approximating the true economic relation of cause and effect in earnings is not close enough and with whom a closer matching of revenue and costs is feasible, have found a specific identification procedure adaptable, in which, however, the identification is not a physical one, with the materials actually used, but an

economic one, with purchases or purchase commitments made to cover sales commitments. This latter type is much like the effectively hedged class I first mentioned in this group except for a "working fund" of materials which is not thus hedged.

To this group of those who have done something about their market problem also belongs the "base-stock" user, who has much essentially in common with the "last-in, first-out" user, differing principally by reason of the approach to the problem, the former's approach being by way of the cost of goods on hand and the balance sheet, the latter's by way of the cost of goods sold and the income account.

This entire group represents those who in one way or another have substantially, though in varying degrees, emancipated their earnings from the distorting effect of market fluctuations. As with the "cost only" man, therefore, considerations of market generally concern the balance sheet view only, as where the belated "last-in, first-out" convert may have adopted the procedure when the upward price movement of an economic cycle has already attained height. As in his case also, I would regard the situation as one where a reserve provided from surplus can best serve the function of a link—a flexible link like an "expansion joint"—connecting inventories from a balance sheet standpoint with inventories from an earnings standpoint.

Our discussion is thus narrowed down to consideration of cost procedures and market procedures in the case of those who have this price affinity between replacement costs and sales prices to contend with, but have done nothing about it, accountingwise, to mitigate market adjustment disturbance of earnings. They use specific identification, "first-in, first-out," or average cost, as their cost procedures.

A word of digression with regard to specific identification—meaning physical identification. In the case of a dealer in

works of art, for instance, this procedure is meaningful since there is no distinction to observe between physical and economic identity; and if his business be deemed as subject to market fluctuations, adjustment by items would seem in order, as against any adjustment in the aggregate. But the meaninglessness of physical identification in certain other cases, in its bearing upon earnings, is very clearly illustrated in the case of securities, where the New York Stock Exchange has pronounced disapproval of the use of specifically identifiable certificates, as a general method for earnings determination.

Where the affinity of replacement cost and sales price is something of slow movement, or the turnover is rapid, the particular cost procedure may not matter so much. And in instances, the effect of replacement cost changes may be fairly well dealt with in the averaging procedure, as against the "first-in, first-out." But where there is a quick reaction between replacement cost and sales price and a slow turnover, these procedures, and of course especially the "first-in, first-out," may occasion considerable distortion of earnings. Then what about market adjustment in the case of such concerns?

Followers of the "going-concern" precept believe that something should be done about market declines, if at all significant. But with the kind of cost procedures these concerns have, whatever market adjustment is made can only be an approximate corrective of earnings, as compared with a cost procedure which aims to discount market effect; and the approximation as to earnings over a period of years will be better than as to earnings for a single year.

If some market adjustment be requisite, then what procedure is in order?

First on our list is the alternative—by items or in aggregate. Some accountants argue that any departure from the old—I almost said senile—rule that the adjust-

ment must in all cases be applied to items, meant the taking up of unearned profits. I cannot reason it that way. It is rather a case of omitting to take up certain declines where they are effectively hedged. To illustrate—no, not by an example or even a fable—this time a parable, wherein oversimplification also is a condonable offense; the parable of the toymaker and the accountant.

This toy-maker made a toy partly of wood and partly of sheet steel—popularly called “tin.” At the end of his fiscal year he had a wood inventory—cost \$50,000, market \$40,000, and a tin inventory—cost \$50,000, market \$60,000, a total of \$100,000 either way. When his accountant examined the books, he said to the toy-maker, “You must charge off \$10,000 as a market write-down on your wood,” to which the toy-maker replied:

“My wood is down \$10,000, it is true, but my tin is up \$10,000.”

“But,” replied the accountant, “you cannot take up the market appreciation in tin; that is not a realized gain, and cannot be used against the market decline of your wood.”

Whereupon expostulated the toy-maker, “Did you ever hear of a hedge? What you call an unrealized gain in the tin is nothing else but a perfectly good hedge against the likewise unrealized loss in the wood; and thanks to my hedged position, I shall go into the new year with an absolutely unchanged overall cost position. I shall maintain the same price for the toys as now and expect to make the same profit margin as in the closed year. If I were to do as you say, I should be clearly understating my profit this year by \$10,000, and correspondingly overstating my profit in the new year. My profit is correct as it stands.”

Whereupon the accountant made answer, “Your profit is not without honor, save only in some text-books.”

Now if the net market decline, rather

than the gross, is reasonable in a given situation, the reserve procedure is almost a corollary. Remembering that in all these cases, any market adjustment cannot be more than a rather imperfect corrective of earnings, the changes in the reserve here (as opposed to the cases already touched upon) function in the income account as a proper alterative of the cost of goods sold, in order to approach a matching of revenue and costs in such industries.

A brief word only on the two remaining listed market procedure items. The matter of future price declines sometimes is only an additional consideration in the broad question of market value, as where, for instance, a rapid price deterioration may require looking into the future beyond the closing date. On the other hand, where it is a matter of indefinite future contingency to be recognized merely for conservative balance-sheet presentation, and where the subsequent actual decline will be appropriately reflected in the income account, a reserve provided from surplus may be the answer.

As to commitments, which we have already had occasion to touch upon, suffice it to say that there are those cases where a real matching of revenue and costs simply cannot be attained without definitely taking commitments into the reckoning.

In conclusion, may I express this thought. History narrates that in the long struggle of creed-formulation, our ancestors had their so-called “age of scholasticism” as a forerunner of the renaissance on the long road upward—an age when realism had no appeal, when argument even dealt with “how many angels could stand on the point of a needle.” In our accounting development, as we progressively rid ourselves of venerable fetishes, may we pursue our path of formulating a sound creed of accounting principles in which reason and realism will each properly participate.

WHAT IS PROPER TRAINING FOR ACCOUNTANTS?

SIDNEY G. WINTER

THE subject which I am asked to present this afternoon is one which has been accorded no small amount of attention in the past; one which is receiving attention in the present; and which, unless I am very much mistaken, will continue to receive attention in the future. You may regard this as a subtle admission that what little I have to say this afternoon is not to be regarded as the *last word*. It may be possible to remove certain hallowed numerals from further appearance in the football wars but there is no likelihood that so controversial a subject as accounting training will disappear from our agenda so long as the right of free speech endures.

It is my intention to limit this discussion to the training of young men for service in the public accounting field. By *training* I have in mind education in a broad sense: "the systematic development and cultivation of the natural powers by inculcation and example." I do not overlook the fact that there is much to be said on the subject of accounting training for those persons who do not intend to enter into professional practice, a group far greater in numerical strength than is that composed of embryo C.P.A.'s. It is by no means unlikely that much of what applies to the training of "professionals" will apply also to the training of "nonprofessionals."

Public accountancy is admittedly one of the newer professions. From time to time accountants have deemed it appropriate to remark the similarities existing between the accounting profession and the professions of medicine and law. To my limited knowledge there have been fewer likenings of accounting to the still older professions of teaching and the ministry. It may be urged that newness is of itself neither

good nor bad. Certainly few would suggest that a profession is exemplary simply because it is old for it must be apparent that one may have old sins as well as old virtues. The professions undoubtedly have points of similarity and points of dissimilarity. To my mind it is no more important for accountants to recognize similarities between their own profession and the other professions than it is for them to recognize the important dissimilarities.

For our present purposes it appears important that we should not overlook a most essential attribute of all the professions: the fact that professional standing comes not from claims of practitioners but from services of such character that this standing is conceded by the public. I have remarked elsewhere that in my mind the outstanding tribute paid to a group by the public is recognition of the fact that the subject matter in the field of the group in question deserves a place in the higher educational program, which the public, through gift or taxation supports. The importance of obtaining a place in the general educational program has long been recognized by accountants. In November of 1899, the New York State Society of Certified Public Accountants adopted a resolution authorizing the president of the society to consult with the officials of Columbia University, the University of the City of New York, and other collegiate bodies with a view to establishing university training in accountancy because "it is the sense of this Society that it is expedient and necessary to the development of the profession of Public Accountancy that the same should be established primarily upon an educational basis, as in the case of other professions." Two sen-

tences from letters of the then president of the society, Charles Waldo Haskins, are indicative of what lay in the minds of professional accountants at the turn of the century: "The grave and urgent necessity for a carefully educated body of public accountants has been demonstrated" and "The establishment of the profession of accountancy upon an educational foundation is manifestly its only safeguard."¹

Accounting has been accorded its place in the general educational program. At least one year of accounting, the elementary course, is available in almost every college in the country. Nearly all colleges and universities offer, in addition to this elementary course, some courses in "advanced accounting." These "advanced courses" usually include cost accounting and some auditing. Courses carrying the equivalent of from nine to fifteen semester hours of credit constitute a rather common accounting curriculum in even the very small schools. Unquestionably there has been a universal recognition of the demand for instruction in accounting.

In general, this instruction has followed one of two paths. What I have in mind can be described by my quoting briefly from a paper presented before the sixth annual meeting of this association: "In a broad way, at least, we may say that there are two schools in accounting instruction, (a) that school which emphasizes primarily the philosophy of accounts, and (b) that school which emphasizes primarily the mechanics of accounting. Probably every accounting instructor will say most emphatically that his institution believes in emphasizing both the philosophy and mechanics of the subject, but a little study of the actual methods of instruction in vogue will usually demonstrate that the one or the other is given a decided preference in

the classroom."² In continuing his remarks, Dean Jackson pointed out the grounds on which the practitioner usually regards the "theoretical student" as unsatisfactory and then added that "even more unsatisfactory is the product of the institution which emphasizes unduly the mechanical side of accountancy" and that "the ideal situation must combine in the classroom the teaching of the philosophy or the fundamental principles of accounting, and of the *correct* accounting procedure." That more instructors might learn these *correct procedures*, two suggestions were advanced: first, that instructors should take temporary leaves of absence from teaching in order to spend time in public-accounting practice, and second, that there should be constantly a closer relationship between instructors in accounting and the best professional practitioners.

With much in these remarks I am in agreement. I feel it is still true that we have "two schools in accounting instruction" and, though I am far less confident on the subject of *correct procedures* than the twelfth president of our association appeared to be in 1921, I am a very firm advocate of a closer bond between teachers and practitioners. In the nineteen years which have passed since that Pittsburgh meeting our schools have done a most commendable job in securing teachers possessed of significant experience in professional accounting practice. I am still very far from being convinced that much can be done in the matter of teaching procedures in the classroom.

If one is more or less familiar with the papers which have been presented at the annual meetings of this association, he may well reach the conclusion that it is relatively difficult to have a truly new idea on the subjects covered. Earlier in this paper I might well have disavowed *originality*

¹ Quoted by Paul E. Bacas in a paper presented before the 6th annual meeting of this association, Pittsburgh, 1921.

² J. Hugh Jackson, *Proceedings of Sixth Annual Meeting*, Pittsburgh, 1921.

along with *finality*. The seventh annual meeting of the association was held here in Chicago. At that meeting one of the papers, *Principles vs. Rules*, was presented by Ross G. Walker, who saw in his subject "the old conflict between what is abstract and covers the whole field and that which is concrete and in hand—between fundamental doctrines and what one might call the prescribed practices. . . ." It is undoubted that "in a hurried civilization like ours where we are forever wanting 'to produce' before we have acquired the producer's gifts, the question will always be coming up concerning the relative merits or relative fitness from a given standpoint of a general or basic preparation and one which is quite particular in its material of study—or one which would pretend to equip the graduate at once for the work of the successful practitioner. Professor Walker left no doubt that in a free choice between a fundamental philosophy on the one hand and a mass of technical procedure on the other, he would "certainly decide in favor of the former."³

There are those who contend that progress has been made in the training of young accountants because there has been a sharp increase in the number of accounting courses offered by the colleges and universities. Particularly among the larger institutions there has been a marked expansion of the accounting curriculum, so marked in fact that many teachers of accounting make no effort to mask their consternation that such concentration in accounting (or in any other single field) can successfully masquerade as a college education. I count myself in this group and I am not unaware of the fact that one may learn more than accounting in an accounting course. The accounting curriculum expands but, to my mind, all too frequently in an unhealthy way. We are inclined to

laugh at certain "methods courses" in education. It may not be unreasonable to have a course in methods of teaching arithmetic. It may not be unreasonable to have a course in methods of teaching arithmetic below the junior high school level. It may not be unreasonable to add a course in methods of teaching arithmetic in the fourth grade. There may still be a place for a course in methods of teaching fractions in the fourth grade but when we get separate courses for common fractions in the fourth grade and decimal fractions in the fourth grade—at that point there is room for a doubt! But if this is one whit more absurd than some of the refinements in certain courses dealing with accounting systems, I fail to see the distinction. I am of the opinion that our accounting majors would be better served with a bit less accounting and a bit more of something else. And the accounting which I would eliminate is that which specializes in procedures.

Before moving on to any suggested program of training, it may be well to devote a moment to recalling the educational deficiencies of the junior accountant. Some twenty years ago the following list appeared with more than a little regularity. The junior was regarded as

1. Lacking in many of the rudiments of business arithmetic constantly recurring in commercial transactions,
2. Unable to use correctly everyday business terms,
3. Unable to write a clear and concise business letter,
4. Unlikely to grasp simple business problems quickly,
5. Not thinking clearly,
6. A preparer of vague and inconclusive reports,
7. Possessed of a very superficial knowledge of securities,
8. Having no conception of the proper use of an audit program,
9. Lacking speed and accuracy in handling figures,

³ *Papers and Proceedings of Seventh Annual Meeting*, page 95.

10. Lacking in thoroughness,
11. Lacking the power to concentrate, and
12. Unable to do routine work with understanding and dispatch.

Many, if not all, of these weaknesses are still with the inexperienced junior accountant. Last October at the annual meeting of the American Institute of Accountants there was conducted a forum on *Progress in Accounting Education*. Mr. T. Edward Ross of Philadelphia presented a short paper pointing out some of the qualifications which the practitioner hopes to find in the college trained accountant. Among others, the following are significant to us at this point. Mr. Ross believes that the college man should have

1. Habits of logical thinking,
2. Ability to get below the surface to determine that conclusions are established on solid foundations,
3. The good sense not to follow instructions in a slavish and routine manner,
4. Recognition of public accounting as an exacting occupation,
5. A legible handwriting,
6. A workable knowledge of arithmetic,
7. Ability to present results of investigations with facility and precision,
8. The educational and cultural equipment essential to meeting other professional men as equals, and
9. A course to bridge the gap between the academic and the professional before he is permitted to work on the books of any client

It should be noted that some of these points are not unlike some of those in the earlier list. More importantly, it should be noted that there has been a sharp change of emphasis from the technical or procedural to the more general or philosophical. I am particularly interested just now in the last two points in this list. The importance of the accountant's being able to meet the members of other professions on a common educational and cultural level cannot be gainsaid. It is obviously the task of the universities to supply this educational and cultural background. To recog-

nize the fact that there is need for some special training "to bridge the gap between the academic and the professional" is to recognize the fact that no truly practical experience can be had by one who is away from the world of practical affairs. Practice is the "adapting of principles to the dynamic affairs of everyday life" and of necessity must have "the atmosphere which goes with the movement and change and pressure of actual affairs."⁴ To me it is obviously the task of the practitioner to supply this initial training under fire.

At this point it is important that we recognize some of the similarities and dissimilarities between accounting and any other profession. In common with the candidates in other professional fields, candidates in accounting may secure in the universities broad training in English, and other languages, in the social sciences, in the physical sciences, and in other subjects such as art, music, and religion. In like manner the candidates in each professional field may pursue their several ways through the elementary, intermediate, and advanced courses in their specialties. Each candidate, regardless of profession, is thus immersed in the fundamental concepts, the underlying principles and relationships in his field, the foundation stones on which the entire superstructure of procedure must rest. In these respects, accounting resembles other professions. Each candidate is faced with prescribed courses and elective courses. The prelegal student finds a minimum of prescribed work and the premedic finds almost nothing in the way of electives. Thus far the accounting student has been asked to follow a middle road permitting considerable freedom in the matter of electives despite the necessity of enrolling for a goodly number of required or prescribed hours.

For each student in the professional

⁴ Walker, *op. cit.*

courses there comes the time when he must obtain his first *practical experience*. Here the several professions are markedly dissimilar. In the dental clinic the young dentist may gain technical training under conditions which are essentially those obtaining in any private office. I am not particularly well informed concerning the "nature of reality" but I am inclined to the opinion that the reality of a toothache depends not at all on the type of dental office before the door of which the pain has a tendency to disappear. I am advised that the medical student may obtain experience in certain techniques and procedures in the medical laboratory. It is likely that all of us are reasonably familiar with the system of medical internship. Here the student has been graduated but is under the necessity of spending a year (or more) in observing the work of experienced members of the profession and in performing certain work under close supervision. Here, as in dentistry, the subject matter is much the same whether it is found in the clinic, the laboratory, the teaching hospital, or private practice. The intern in medicine is essentially an apprentice and the hospital is in one sense the workshop of the apprentice.

In law one finds conditions quite unlike those found in dentistry and medicine. The young lawyer is educated in theory, in fundamental principles, in the basic concepts underlying the development of the law. He has some training in "practice court" and, if he is an exceptionally fine student, has the honor of presenting an argument before visiting justices of high or low degree but he has had nothing which fully approximates the world of practical affairs. Even the oft-damned court of a justice of the peace encompasses in a single session more in the way of actual consequence than can be encountered in a full year of "mock trials." If the young attorney is to gain experience under the competent direction of older members of

the bar he must be content with a minor place in an established firm. He has, of course, the alternative of establishing his own office and of meeting the world of practical affairs without the buckler of supervision.

The position of the young accountant resembles that of the young lawyer somewhat more than it does that of either the doctor or the dentist. For the young accountant the classroom provides less in the way of an approximation of reality than it does for the lawyer. The preparation of a case and its presentation in practice court carry different degrees of kinship with the world of affairs. In appellate work, make-believe strongly resembles real life. As I see it, the young accountant must ever find a wider gap between the hypothetical and the real. Cost allocation in the "accounting case," pretend as we may, is not of the stuff of life. It can never be so real as is the aching tooth which the young dental student encounters in his clinic. No amount of professional accounting experience and teaching experience can introduce into an audit case or practice set anything to compensate for the compressing of a vast amount of material into a volume suitable for classroom use. More important still, the make-believe can never contain the unconscious turning of a head or drumming of a finger which prompts the accountant to suspect that his client is lying.

I have little fault to find with the practitioner who contends that experience in techniques and procedures must be obtained in the field to be of value. I do object when this same practitioner finds fault with our graduates on the ground that they are not familiar with these procedures which he has earlier asserted cannot be learned in the classroom. I do not believe that schools of commerce should conduct accounting practices somewhat as schools of medicine conduct hospitals. I believe

that the internship of the young accountant should be served in the office of the practitioner. Let me restate this briefly by quoting from some remarks of the first president of this association before the Pittsburgh meeting in 1921.

"The junior assistant of today is the senior assistant of tomorrow and the in-charge accountant of the day after. The harvest to be reaped will depend on the seed which is sown. . . . The training which the junior receives will be reflected in the work of the in-charge accountant. It therefore appears to be necessary that the utmost attention should be given to the

preparation and instruction of the junior assistant. Experience shows that something more than the study of theory is necessary for proper and satisfactory execution of work in the field.

"He needs not only to study the theory but to have someone who is competent take him to the job, analyze it for him, show him how his theory applies, tell him what to do, watch him while he does it, correct his mistakes, and let him do the work a second time if necessary."

With these remarks of the late John R. Wildman I am in full accord.

SOME ANTECEDENTS OF THE SECURITIES AND EXCHANGE COMMISSION

J. R. TAYLOR

SOMEONE has said that not only does history repeat itself but also historians repeat themselves. We who are associated with accounting have materially benefited through this reiteration. Most often, we are more impressed by the current happening than with those antecedents which precede the event. However, a sound reaction and a judicious forecasting of possible developments must be predicated upon a study of those events which precede the incident at hand. Historical perspective may be said to be an essentiality to a sound judgment. Especially is this true with respect to the development of accounting techniques and legal responsibilities under regulations in general, and the Securities and Exchange Commission legislation in particular.

BACKGROUND OF SECURITIES AND EXCHANGE COMMISSION LEGISLATION

There is a current feeling among many

accountants that this legislation was the outgrowth of the professed philosophy of the political party then in power—to protect the small capital-furnishers from exploitation by corporate financiers. Moreover, it is held by some that this philosophy was fostered by the security and safety attitude attendant with the depression era. A review of the facts, however, shows that these are but half truths, for there were many historical antecedents. Fundamentally, the regulations were directed toward the financial practices of a prosperity period rather than at those found most often in an economic and financial valley.¹

Time and again the prosperity malpractices of corporate management were the subjects of erudite discussions. Moreover, the courts have always had a tendency to

¹ During a prosperity era the financial malpractices usually arise out of corporate creation or expansion. In a depression era, however, these financial malpractices are attendant with the consolidation or liquidation of corporate entities.

ward setting up rules of law which they felt would protect the small absentee owner. Perhaps this depression philosophy may be said to be accountable for the desire to limit the capital-raising activities of those large corporate entities in future prosperity periods, who had demonstrated themselves to be given to faulty procedures during the prosperity era of the twenties. But it must be emphasized that there was a trend toward such financial regulations even during the preceding prosperity period. Furthermore, during this period there were evidences indicating that the accountants' responsibility would likewise expand and increase under this financial control philosophy. Perhaps the first forecast of accountants' increasing responsibility was the *Ultra Mares* case which began early in 1924.

ACCOUNTANTS' RESPONSIBILITIES PRIOR TO THE ULTRA MARES DECISION

Before the *Ultra Mares* case, public accountants in America had not had their responsibility clearly interpreted, nor had the limits of their liability to third persons been defined under common law decision to the accountant's complete satisfaction. In England, however, the reverse was true; there the courts had rendered a sufficient number of decisions, and a responsibility concept for the accountant was fairly well outlined under the rules of law which the English courts had set up. Moreover, the greater age of auditing in England as well as the passage of certain laws (the Company Act in 1908 is an example) had enabled the English auditors to know more clearly their position. Finally, in England there had been no major shift in the sources of capital.

English businessmen have always secured the larger portion of the necessary capital from stockholders. This practice dates back to the Industrial Revolution. On the other hand, up until the World War

the large corporate entity in the United States was financed primarily through advances from short and long-term creditors. After 1922, however, corporate management turned to selling securities in order to secure the capital needed.² This shift in the capital sources utilized by corporate management resulted in a need for a change in the auditing technique by the American public accountant, as well as a shift in the relative importance of the two principal financial statements, the balance sheet, and the profit-and-loss statement.³

Since the auditor's client was most often no longer a trustee of capital but an agent for absentee principals, emphasis should have been shifted from the debt-paying valuations to going-concern valuations and the profit-and-loss statement should have become the more important report rendered by the public accountant. In other words, the profit-and-loss statements of succeeding periods were connected by a balance sheet, while the reverse had been true as long as the major portion of capital funds was secured from creditors. Furthermore, a property need no longer have the ability to retire debts to be classed as an asset. All that it needed to demonstrate was the ability to be a necessary adjunct to revenues arising in subsequent fiscal periods.

Prior to the *Ultra Mares* case the accounting profession in the United States had presumed that the American courts would follow English precedents in most of their decisions. However, the profession was not always confident that these English precedents would be followed, for it was aware that its audit was limited, while the English profession most often performed a detailed examination. There was,

² See page 194 for the reasons for this shift.

³ In many instances corporate management shifted from bankers to bondholders for its capital. Theoretically the relationship was still one of trustee and beneficiary, but practically the bond-holders position was closely synonymous to that of a stockholder.

no doubt, added reason for the practicing accountant in the United States to feel that the American courts would follow British precedent (that is, common-law precedent), after he had shifted his emphases to one which was more closely synonymous with English audit philosophy—security holder rather than creditor audit—even though his program most often was not as detailed. Of course, the American accountant could never be certain that his courts would look behind this facial difference—test checking as opposed to a detailed audit—to the underlying sameness in the audit philosophy. That is, how well are the assets entrusted being used (stockholders' viewpoint), rather than how valuable are the assets as debt payers (creditors' viewpoint). Because of this uncertainty, accountants in the United States were aware of their difficult position and many articles were written by them during this period concerning their perturbation.

Furthermore, in an attempt to limit their responsibility and its extension to third persons when coupled with a circumscribed audit program, many accountants wrote extended and excessively qualified certificates. The result was that the average reader, who was, most often, not versed in the technical and obtuse phraseology used, was more confused than enlightened by the certificate which accompanied the auditor's report. It is interesting to review the early samples of certificates and compare them with later examples. One is almost forced to the conclusion that there was support for the accusations that accountants were attempting to evade their responsibility by qualifying their certificates. Whether or not the responsibility should have been attached to the accountants is open to question. There are, however, few supporters for the thesis that the certificate should afford a screen behind which the auditor may conceal the lack of a professional attitude.

ULTRA MARES CASE

If the certificates of the period had anything in common it was the freedom with which the individual composers mixed freely statements of fact and statements of opinion. The *Ultra Mares* case indirectly but roundly criticized this current trend of using the certificate as an escape mechanism on two scores:

1. The confusion of statements of fact and opinion.

2. The certification of an opinion based upon an unseasoned judgment arising out of an unprofessional attitude on the part of the auditor.

The first criticism clarified the court's position for auditors in that it indicated that a fact is a statement and not a certification. Moreover, the court saw the obvious redundancy in certifying to one's own opinion. The more pertinent question was whether the opinion expressed by the certifying accountant was the result of a whimsey or grew out of a measured consideration based upon sufficient evidence, objectively verified. The second criticism, then, was the more significant issue which the court evolved, for it dwelled upon an accounting and auditing problem rather than upon a rhetorical question.

Under the common-law decisions, auditors had had the feeling that their responsibility to third persons was limited to that of fraud, and that privity of contract disburdened them from any legal responsibility to third parties even though negligence was proved. Here, however, the court said the accountant must act as a professional man. Obviously, this represented an extension of responsibility from that attached to the accountant's work under the "prudent man," and "privity of contract" concepts. Furthermore, the court reiterated that "Privity of contract" did not represent a satisfactory defense if fraud were proved by the plaintiff. Proof, of course, depended upon the facts in a particular case. How-

ever, it is to be noted that the editor of the *Certified Public Accountant* (Volume II, page 35, 1931) said: "This decision would seem to narrow materially the ground which accountants heretofore believed was covered by the general term 'negligence,' and correspondingly increased the sphere of what might be legally denominated 'fraud'."

To the practicing accountants it was apparent that a fraud could be perpetrated much easier by them after this decision than under the older concept of negligence and fraud. Most certainly it removed any and all temptation to use the standard audit certificate while varying from the standard audit program (to do less than the program required), as well as indicating that it would be prudent to determine the use to which the submitted report would be put by the client.

NEW YORK STATE PROPOSAL

In 1925, there was a movement to amend the corporation laws in the state of New York. No doubt, some accountants would contend that the proposed amendment grew out of the *Ultra Mares* case. Perhaps this case was the initiating force, but this writer can think of the case only as an accentuating influence rather than as a causal factor. The interim from 1924 (the year the *Ultra Mares* case began) to 1925 seems too short for the real importance of the case to have been appreciated by the public generally, and the New York State legislators particularly. Moreover, the appeal decision was not rendered until 1931. Rather it would seem that both the *Ultra Mares* case and the New York State proposal grew out of:

1. The concentration of economic capital in a limited number of corporations.
2. Faulty methods of corporate financing.
3. Evidences of insufficient managerial control.

4. The government trend toward the controlling of the large corporate entities, instead of attempting to break up these economic units.

5. The appreciation of predicated effective and fair controls upon a knowledge of the facts.

6. The desirability of independent audits for securing the needed financial and economic information.

Although the proposal was not enacted, it is interesting to the accounting profession for an inherent feature was a compulsory yearly audit of corporations by an independent public accountant. The directors were to appoint the auditor, outline his duties, and designate the scope of the audit program.

Not only did this proposal acknowledge the need of independent audits, but at the same time it would have increased the auditors' responsibility beyond that outlined in the decision of the London and General Bank (*Accountants' Law Reports*, 1895, page 173), and reiterated by Mr. Justices Lindley, Kay, and Lopez in the appeal of the Kingston Cotton Mill Case (*Accountants' Law Reports*, 1896, page 77). Under this New York proposal, the auditor was not to be excused even though he brought "to bear on the work . . . that skill, care, and caution which a *reasonable competent, and careful, and cautious auditor* would use." Apparently as long as it was demonstrated that there were:

1. An omission of an essential fact,
2. A misstatement of an essential fact,
3. A third person suffering a loss because of this omission or misstatement,

Then, the auditor was liable to this third person, regardless of whether he was "reasonably competent, careful, and cautious," or whether he even knew of this third person's existence.

Thus, a trend can be traced in audit responsibility. The language in the English

cases seems not as strong as that used in the Ultra Mares case, and yet they attached somewhat more responsibility to the auditor than did the earlier decisions based upon the "prudence" concept. The Ultra Mares case narrowed the field of negligence, and stressed the necessity of a professional attitude on the part of the public accountant. Further, it may be inferred that the New York State proposal represented a step before the Securities and Exchange Act of 1933, for the former would not have placed the auditor under as extended responsibility as did the Securities and Exchange Commission Act of 1933.

At this point, a pertinent question represents itself: even if the American auditor had not been placed under the responsibility attendant with the Securities and Exchange legislation, would not eventually the common law developed rules and precedents, and changes in the various state corporation laws, increased accountants' responsibilities to the point comparable to that of today? There seems to have been a more or less clearly defined trend in that direction. Certainly the New York proposal was not spontaneous but must have been somewhat representative of current philosophy, namely:

1. Interested persons outside the immediate management of a corporation should be presented with certain factual information,
2. Public auditors were in a position and had the ability necessary to secure this information and present it,
3. And, to assure themselves of a complete and satisfactory report, auditors were to assume added responsibilities and legal obligations.

One cannot of course say that even if the above were the philosophy of New Yorkers, that it was representative of American philosophy as a whole. Perhaps, however, it may be held that the New York view-

point was somewhat indicative of the feeling throughout the corporate investing public. There were evidences that indicated the feeling was current and rather widespread within the corporate investing public for additional and objectively verified information, reference of the task to public accountants, and increased auditor responsibility. Principal among these evidences were:

1. Writers of semi-popular literature were indicating the current financial practices (Professor William Z. Ripley's book, *Wall Street and Main Street* (1927), exemplified such literature).
2. Courts were beginning to recognize the almost complete alienation of ownership and control in our larger corporations, and the need for third party protection (although the courts did not say so directly, apparently they were attempting to set up protections for actual and potential shareholder-owners rather than attempting to extend the auditor's responsibility to third persons as a whole).
3. Concentration of the money market and the financial agencies in New York City.
4. In the early 1930's, there was much talk of Federal incorporation, and compulsory audits by independent accountants.

If it were true that such a feeling was current, and if this group were large enough that its pressure became apparent, then the common-law trend toward increasing auditor responsibility would have become increased proportionally. However, the American public is an impatient one and seldom permits trends to develop fully. If it discovers what it considers to be an evil practice, regardless of whether it is a common or an unusual event, it must have a law enacted which evidences

its disapproval and prescribes suitable legal action.

AMERICAN INSTITUTE AND NEW YORK EXCHANGE COÖPERATION

Professor Ripley's book, *Wall Street and Main Street*, indicated that the financial practices of the period were faulty, and that a corrective control should be brought to bear upon these practices. Ripley also suggested that these corrective measures, to be soundly enacted and administered, must be predicated upon more informative statements. Further, he expressed the hope that the stock exchange would support the public accountants in fulfilling this need.

Accountants were impressed by Ripley's suggestions. As early as 1927, accountants attempted, through the American Institute, to have the New York Stock Exchange and the Institute appoint a joint committee to study the whole reporting problem. However, the Exchange was not ready at that time to enter into such a coöperative effort, and it was not until 1930, that J. M. B. Hoxsey, in the *Journal of Accountancy*, October, 1930, suggested that such cooperation would prove helpful, and that the Exchange would welcome the opportunity to make a joint study of the mutually interesting problem. Since this coöperation marked another historical incident before the Securities and Exchange Commission legislation, it seems appropriate at this time to analyze why this coöperation occurred in 1930, and to give the outcome of it.

As has been indicated, the failure of the American Institute and the New York Stock Exchange to appoint a joint committee in 1927, was because the coöperation lacked support among the members of the Exchange. Not only had the Institute's spokesman suggested that such a coöperation would be mutually beneficial, but accountants evidenced, by their writ-

ings and discussions in the Institute's organization meetings, that they were dissatisfied with their auditing technique and its adaptability under varying situations, as well as with the general inadequacy of the 1917 audit program. This dissatisfaction was witnessed as early as 1925, and culminated in the study of the possibilities for engagement classification. The attempt to classify the auditor's work grew out of the exposures of current financial practices, and the growing legal responsibility under the rules of law being developed by the courts. Although Mr. Wildman, chairman of the committee appointed by the Institute to study audit classification, and his committee suggested that there could be several audits with the recommendation that a standard certificate for each type be adopted, the members of the Institute were unwilling to accept the report. These members must have felt that if audit engagements were classified, this would stereotype auditing practice and leave only a restricted area in which the accountant could exercise his professional judgment. It is interesting to note that although accountants realized the inherent weakness in their techniques and the growing financial and economic complexities attendant with the concentration of capital in the corporate form of business enterprise, they were unwilling to accept self-imposed restrictions. Yet, in the thirties, they had to accept restrictions imposed by external groups. Furthermore, their reaction to Mr. Wildman's committee report indicates that even if the American Institute and New York Stock Exchange had actually coöperated in 1927, the members of the Institute would have been unwilling to accept any drastic departure from commonly accepted auditing procedures. It is doubtful whether any constructive suggestions would have been accepted by the Institute's members, for accountants like all humanity have to be

moved into action by forceful and dynamic circumstances rather than by seeing and accepting inevitable developments arising from historical trends. These forceful and dynamic circumstances were the reason for the Exchange expressing, through its spokesman, Mr. Hoxsey, the feeling that active coöperation with the Institute would be beneficial.

Perhaps the stock market crash in 1929 had influenced the change in the Exchange's disposition toward coöperation with the Institute, but this must not be overstressed as a causal factor. In 1930, the Exchange felt that the aftermath of the crash was but a temporary recession and that recovery was "just around the corner." This belief was based upon:

1. The 1922 price-structure break had been of short duration.
2. Since financing had shifted to the raising of needed capital by selling securities rather than by borrowing from bankers, bankers had been the major source of capital before 1922, management would not be pressed for repayment of loans and, therefore, there would be no further depressing of the market by the dumping of inventories to satisfy the banker demands. In other words, because of the absence of this forced inventory liquidation the price structure would regain lost ground more quickly than it had after the 1922 break.
3. During the prosperous 20's, it was accepted as a fact (and the philosophy remained long into the 30's) that we had mastered the art of production—highest production per capita, cheapness of production per unit output, and larger purchasing power per worker. This mastery of production and the distribution of larger purchasing power to the workers, whose marginal valuation of their income was relatively high, would

make the return of prosperity inevitable.

4. Historically, before the break in 1929, wholesale prices for a number of years had been relatively stable with a trend toward a permanently higher level. This stability of the price structure introduced the philosophy that we had overcome the economics of price; and therefore the break in 1929, being counter to this trend, would soon be overcome.

Probably the strongest activating force was the Kreuger and Toll crash. Here was the dynamic incident that focused attention upon the evils possible under the holding-subsidiary form of corporate enterprise, in spite of frequent audits by competent public accountants.

Mr. Ivar Kreuger's technique was one of retaining managerial control in a way that the authority delegated to subsidiary managements was such that no one person, outside of Kreuger, knew but little about the economic entity. Moreover, by skillful manipulation between these subsidiaries and the restriction of audits to legal entities he was able to conceal these dexterously executed frauds.⁴

The investigation which followed the Kreuger and Toll crash made it apparent that these manipulations would not have been possible had the examination covered the economic entity rather than being restricted to the legal entities, or had the audits of the legal entities been correlated in such a manner that a complete review of the economic entity would have been possible. Finally, many of the transactions carried on among and between the subsidiaries and the parent company, as well

⁴ For a more complete exposé, the reader is referred to, "Hearings before a subcommittee of the Committee on Banking and Currency of the United States Senate," Seventy-second Congress, Second Session, Part 4. The testimony of George O. May on pages 1259 to 1274 should be of particular interest to the accountant, especially pages 1267 and 1270.

as the verifying and reporting technique used by public accountants for this company, came under critical analysis. The transactions accepted by accountants, and the verifying and reporting techniques utilized by them, cannot be said to be representative of what was considered then to be the best practices; but they were acceptable as approved departures from auditing standards.

This departure from professional standards is a case at point where accountants based their concepts upon legal doctrine rather than upon those peculiarly adaptable to their auditing and reporting techniques. Legal limitation were never intended by the courts or legislatures to be used as auditing or accounting standards. This use of legal limitations as if they are auditing prescriptions is denied by the mere fact that a standard should never be expressed in a negative sense. A standard to be classed as such should express what is the better solution, rather than what is not acceptable. Moreover, auditing, particularly, is in essence a research technique, and research cannot be directed by legal prescriptions or concepts.

Finally, the auditor, since he is conducting a financial and economic review, should not be limited to examining only a legal entity if the development of his report is dependent in a large part upon the authentication of an investment in a subsidiary, or in those cases where a large number of intercompany transactions indicate an audit of these transfers. One cannot set up any rules regulating the extension of auditing technique; materiality should be the governing factor, as in all research. It must be noted that during this period, accountants sometimes deviated from what was then considered a standard for auditing practice and relied upon legal acquittal even though professionally they retained their ethical responsibilities. Not only were they accepting practices which

afterward proved to be faulty, but one finds in the current literature of the period reasons why these practices were not only acceptable but preferable to the commonly prescribed auditing and accounting methodologies. Accountants, however, cannot be too strongly criticized; for, their fees were limited, the clients were overly persuasive, and even they were not impregnable to the economic and financial philosophy prevalent during the thirties.

Turning, finally, to the results of the cooperation between the American Institute and the New York Stock Exchange, there were at least three important outcomes and since they have been currently discussed and are well appreciated, listing them seems sufficient:

1. Agreement on five broad accounting principles.
2. A new certificate in which there was a complete separation of fact and opinion.
3. The issue by the Stock Exchange of new rules for listing.

SUMMARY

Accounting has developed from an extremely simplified memorandum technique into a complex recording and reporting methodology. As the activities of the commercial world and its economic form became more complex, new and expanded services were demanded from accountants. The whole history of accounting and the evolving of its concepts, as well as the attainment of a professional status, has been one of development in response to these new and greater demands by business men, bankers, stockholders, and the courts. As accounting has accepted these added recording and reporting tasks, likewise its members have been forced to accept greater legal as well as moral responsibilities. If the accounting profession had been keenly aware of the ever increasing number of accounting services which it

was offering and its clients were accepting, and that there was a synonymous growth of legal and professional responsibility, as well as a historical trend, leading up to the Securities and Exchange Commission legislation, the members of the accounting pro-

fession would have been less startled by the enactment. They would have appreciated the fact that the Act of 1933 was but a culmination or the capstone to a pyramidal growth of historical antecedents.

MATCHING COSTS WITH REVENUES IN THE FLOUR-MILLING INDUSTRY

ROBERT P. LOGUE

IN *An Introduction to Corporate Accounting Standards*, Messrs. Paton and Littleton have taken an important step. For the first time accountants have been given a yardstick by which they may attempt to measure their accounting procedures in whatever industry they may happen to be located. But before any measuring will be done by this "yardstick," the unit of measure may have to undergo a long process of formulation and criticism. The authors realize this when they say, "It (the yardstick) must inevitably embody some conflict with existing accounting practices, since existing practice is in conflict with itself at a hundred points."¹ The authors go farther than merely to recognize that there will be practices which do not conform precisely to the same standards; they are willing to recognize some departures as valid. This is shown by the statement, "Whereas rules would be made to afford a basis for conformity, standards are conceived as gauges by which to measure departures, when and if departure is necessary and clearly justifiable."²

This paper in no way questions the validity of the suggested standards, but

rather is an attempt to see if one of them is applicable to the flour-milling industry.

THE CONCEPT OF MATCHING

"With acquisition and disposition prices measuring both the efforts to produce results and the results produced, the principal concern of accounting is the periodic matching of costs and revenues as a test-reading by which to gauge the effects of the efforts expended."³ This concept of "matched costs and revenues" is the main concept discussed here. The standard is simple indeed in its nature: to get a true picture of periodic results of operations, there must be charged against revenues received the actual cost incurred in the process of receiving these revenues.

Before the two elements can be "matched," they must be put in some common form so that they will be comparable. The elements are both expressed, therefore, as "price-aggregates." But although costs are handled as price-aggregates (indeed how else could they be handled?), it is not just to speak of them as merely price-aggregates. Costs are in reality a measure of efforts expended to produce a product. In the same way it is not enough to speak of revenues as mere price-aggregates; but they must be viewed as a measure of business accomplishment.

¹ Paton and Littleton, *An Introduction to Corporate Accounting Standards*, American Accounting Association Monograph No. 3, page 4.

² *Ibid.*, p. 5.

³ *Ibid.*, p. 7.

The concept of matching costs with revenues is then an attempt to match the efforts of the period, set down in terms of price-aggregates, with the results or accomplishments of this period, also set down in terms of price-aggregates. In other words the revenues of the particular period are charged with the costs which are reasonably associated with the product represented by such revenues.

Now that it has been seen what is embodied in the concept of matching costs and revenues, one may ask how this applies to the milling industry. But before an attempt is made to answer this question, let us carry the implications of this matching a little farther.

"Recognition of the inadequacy of recorded cost (either total original cost or cost less accrued depreciation or amortization) as a continuous expression of market value should not lead to the conclusion that accounting based on cost is unsound and should be replaced by an accounting for values. The primary purpose of accounting, as has been explained, is the measurement of periodic income by means of a systematic process of matching costs and revenues. Substitution of estimated current market values for recorded cost factors en route to assignment to revenue would bring about a radical modification of the standard scheme of income determination. Periodic net, instead of representing the excess of revenue over attaching costs incurred, would then include the effect of all write-ups and write-downs of the cost factors involved."⁴ This is elsewhere stated more briefly, "The use of estimated values, such as current replacement prices, results in less dependable net-income figures than the use of costs actually incurred."⁵ Thus, it can be seen that the authors take a distinct stand against the use of replacement costs. Such a stand

is necessitated by their concept of "matching costs with revenue." To make the matching process perfect, the cost basis of valuation must be used throughout. Thus, the authors frown on any other basis of valuation.

It is not the purpose of this discussion to judge the relative merits of various forms of valuation, although such a discussion would be interesting indeed. Rather, its purpose is to show a standard which the authors have set up, and to judge the practices in the milling industry in the light of this standard. The concern here is primarily with an examination of the concept of "matching costs with revenues" with its emphasis on recorded or actual costs rather than replacement costs.

One standard as set up by Paton and Littleton has been discussed, but before it can be said whether it is being applied in the flour-milling industry, some of the accounting practices of the industry must first be examined.

ACCOUNTING PRACTICES IN THE MILLING INDUSTRY

The milling industry in many of its accounting practices follows what might be called conventional or accepted accounting methods. In examining the procedure followed, one can see that its method of handling labor and many of its indirect expenses are in line with common accounting practices. We will not be concerned with these aspects of accounting. What we are primarily interested in are the many problems associated with the handling of the industry's raw material, wheat. On the average, the cost of wheat constitutes about eighty per cent of the total costs of a milling firm. This percentage varies directly with the price of wheat: if the price of wheat is high, the percentage is also high and vice versa. Accounting methods used in handling this raw material are important because its cost is so large a part

⁴ *Ibid.*, p. 123.

⁵ *Ibid.*, p. 118.

of the total cost of milling. Involved also is the problem of hedging, around which most of this discussion is written.

One of the biggest problems of the milling industry is the problem of freeing itself from the effects of speculative gains and losses arising from the wide and often sudden changes in the price of wheat. A flour mill is in business to make a profit on its milling operations, not to make a profit on speculation in grain. Speculative risks could be, to a large extent, passed on to the purchaser were it not for the fact that most of a mill's sales are for future delivery, while the price is quoted on the present market price of wheat. Thus, unless a mill hedges, there will be some speculative gain or loss as soon as the price of wheat changes. Some of the risk may be minimized by purchasing cash wheat against commitments in flour. Since it is not always possible to purchase the kind of cash wheat that is needed, or because at times this is not practicable, many mills have adopted the policy of hedging their flour sales by the purchase of wheat futures. Then, when the cash wheat is purchased, the futures purchases are closed out. In most cases it is necessary for a mill to purchase the cash wheat when available in advance of flour sales. This means that a mill will usually own, or have contracted, wheat far beyond the bushel equivalent of the flour orders booked. To protect against the effects of market changes in this excess supply of wheat, many mills sell wheat futures to balance the grain position. When flour bookings are made, a like amount of wheat futures are closed out. These operations in buying and selling wheat futures are known as "hedges."

Because of hedging operations, most of the large milling companies are divided into two departments, the grain department, and the milling department. The purpose of this is to segregate the profits or losses from the purchase of grain from

the profits or losses on the regular milling operations of the company. The grain department is concerned with the purchase, storage, and hedging of wheat. It must necessarily be closely tied up with the milling department because the milling department must use the wheat that it purchases. It then enters into grain contracts with the milling department when the latter sells flour and needs the wheat. These grain contracts are treated as sales for the grain department and as purchases for the milling department. The gain or loss shown by the grain profit-and-loss statement will be due to the fact that the grain department cannot hedge perfectly. The milling department, will, as was mentioned, contract to purchase grain from the grain department. It will do this when it makes a flour booking. The price of the grain contract will be the current market price of the grain at the time of the flour booking. The milling profit-and-loss statement for the period will show the profit or loss on the milling operation. Thus, the profit and loss is broken down into two parts: the grain profit and loss, which is largely uncontrollable, and the milling profit and loss, which is, to some extent, controllable. To get the total profit or loss for the period, all that is necessary is to combine these two statements and wash out the intracompany accounts. It might not be feasible for a small mill to make this division into departments, but it should so set up its accounts that the source of its profit or loss will be clearly shown.

Another effect of hedging is that the price of flour fluctuates directly with the price of wheat. It is not intended that the details of a cost of a barrel of flour should be discussed here, but it is important to note that the price of a barrel of flour is made up of wheat at replacement cost; offals and clears credit; milling, selling, and administrative expenses; and profit. Usually the price of flour changes when the

price of wheat moves two cents either up or down. Although the price of flour is set by competition, it is possible for the price to fluctuate with the price of wheat because any gain or loss on the sale of the flour is offset by a loss or gain on the futures transactions.

All through this discussion the emphasis which the milling industry places on the replacement price of wheat has been noted. Besides being of great importance in setting the selling price, it is also the accepted basis of valuing the inventory. The value of the inventory is usually figured by this means:

Wheat and flour on hand, at market	_____
Which is adjusted for	_____
Gain or loss on wheat futures brought to market	_____
Gain or loss on flour bookings brought to market	_____
Total	_____

INVENTORY

Gain or loss on bringing wheat futures and flour bookings to market should be explained. At the end of any given period there will be some wheat-futures contracts outstanding, either sales or purchases or both. These wheat-futures contracts will be at a given price, originally cost, but this price will be different from the current price. These contracts are valued at the current price, and the difference between the contract price and the current price will be a gain or loss. For instance, if at the end of the period there are 10,000 bushels of wheat-futures contracts outstanding which were purchased when the futures market was at \$1.00 and now the wheat-futures market is at \$1.05, there will be a gain of \$500 because these wheat futures can be sold at five cents a bushel higher than was paid for them. The flour bookings, which are contracts for future de-

livery of flour, are treated in the same way.

Thus, to reduce speculative risks on its grain operations, the milling industry engages in hedging activities; because of the competitive nature of the milling industry and because the cost of grain is a large proportion of the total cost of flour, flour prices closely follow grain prices; to determine the source of the profit or loss, mill operations are divided between the grain department and the milling department and lastly, the industry emphasizes replacement values.

One standard set up by Paton and Littleton has been examined, and the accounting procedures used by the milling industry have also been examined. On the face of it, there would seem to be some wide divergences between the standard set up by the authors and the procedures used by the milling industry. It has been noted that although the authors disapprove of the use of replacement costs, the milling industry uses replacement costs extensively. The object of this discussion is to see if the milling industry is as far out of line with the author's standard as it would seem to be.

REVENUE

Before there can be any matching of costs and revenues, the cost and the revenue of the mill must be objectively measured. The first thing that must be done is to determine what is the cost and what is the revenue in the milling industry. Let us look at the revenue first. Where there is a cash sale from stock and immediate delivery there can be no doubt as to the revenue. The revenue in that situation is the actual cash that was received. But this type of sale is not the most common in the milling industry. It is usually the practice for the milling industry to sell for what is known as "future delivery." In this instance the mill contracts to deliver a speci-

fied amount of flour of a certain grade some time in the future, and at a specified price. The price of this flour is determined by the market price of wheat at the time of the sale for future delivery. Here again there is little doubt as to the revenue from the sale. The revenue is the ultimate cash received from the sale. But because the accounting must necessarily cover a certain period of time, the problem arises of determining the period to which the revenue belongs. It might seem that because the mill had contracted to deliver flour in the future, all the contracts for future delivery entered into during any period should be treated as sales of that period. But although the contract has been entered into and is legally binding, the sale has not been completed until both parties have fulfilled their obligations.

The fallacy in treating these contracts as sales of a period when the flour hasn't been delivered will be seen immediately from the following example. A company has contracted to deliver 1,000 barrels of flour during an accounting period. But during the period it is able neither to mill nor deliver any flour. If flour bookings were regarded as sales, the statements would show a profit for a period during which the company had done nothing except record bookings. How then, does the milling industry handle the situation? Of course, among the various mills there are many variations in procedure, but the industry usually considers a sale completed when the flour has been delivered. Thus, sales include only the actual amount of flour and feed delivered during the period. The revenues for the period would then be the amount of cash or cash equivalent received from these deliveries.

COSTS

The primary concern here is with the handling of the material cost. It is in this phase of its accounting that it would be the

easiest, on superficial examination, to accuse the milling industry of not matching costs with revenues.

Now it is necessary to determine the real material cost of the period so it can be matched with the revenue for the same period. Paton and Littleton have stated: "In the case of hedging transactions undertaken by a converter the resulting gain or loss is clearly an operating adjustment, not a separate financial item."⁶ Or as Hanneman says in speaking of the cost of goods sold in the grain profit-and-loss statement, "The cost elements making up this caption are: Opening inventory showing bushels, valued at replacement or market basis; purchases; and closed futures resulting in a net profit or loss. These items are totaled, and from this amount is deducted the closing inventory . . . valued at replacement or market basis."⁷

The justification for the valuation of beginning and ending inventories at replacement or market will be noted later on. The concern here is with the adjustment of cost for closed wheat futures. If a wheat future is closed at a profit, it would be a deduction from cost; if closed at a loss, it would be an addition to cost. This is a logical method of handling the loss or gain on wheat futures because it must be realized that cash transactions and futures transactions are not two separate transactions, but rather that they are only parts of the same transaction. Thus, leaving out the inventories, the real cost of the purchases is not the cost of the cash grain only, but this cost adjusted for the gain or loss on the other half of the transaction, the wheat-futures dealings.

At the end of any accounting period there will be some outstanding futures contracts, or "open transactions," as they are called. Cognizance must also be taken of

⁶ *Op. cit.*, p. 61.

⁷ H. H. Hanneman, *Standard Cost Bulletin No. 20*, Millers National Federation, Chicago, 1928.

these "open transactions" in matching. "Flour-mill and grain accounting, to be of operating value, must recognize in the profit-and-loss statement the varying effects of the unfinished contractual relations from the buying of grains and the sale of manufactured products. The business of a milling company comprises both open and closed transactions. Among the open transactions are the purchases of wheat in the form of open contracts, and the unshipped flour and feed sales . . . In most all milling plants it is difficult, if not impossible, to get a complete and satisfactory picture of the current status of the business through ledger accounts that deal only with closed transactions."⁸

The Bureau of Internal Revenue in its rulings recognizes the necessity of adjusting for these open contracts. It says, "The test being whether the method of accounting employed properly reflects the annual income or not, it seems perfectly plain that no method of reporting income which fails to take into account the open hedges, and the collateral obligations which go with them, is permissible, and that the only method possible is the one universally used, which we are now advocating."⁹ Thus, after the profit on closed transactions is computed, it is adjusted for profit on open transactions. That is, these transactions will either decrease cost if there is a gain on bringing open transactions to market, or add to cost if there is a loss on bringing open transactions to market.

It might be argued by some that where these futures transactions are not closed, the cost cannot be adjusted by bringing these open futures to market, because to do so would be admitting to the profit-and-loss statement elements of unrealized gain or loss. But this argument is proven false by examination of the way in which fu-

tures contracts are handled. Contracts for the sale or purchase of grain for future delivery (when employed as hedges) are brought to the market not only at the end of every fiscal period, but also, and more important, at the end of every business day. This is accomplished by one of three ways: (a) by clearing associations, where the association settles all outstanding hedging contracts at the end of each day, either by paying to each member the member's gains or by collecting the member's losses; (b) by the deposit by each party to the contract of a specified "margin" with the governing committee of the exchange, which committee at the close of each business day deducts from the margin of those who have lost on changes in the market and adds to those who have gained; or (c) if the hedge be placed in another market, by putting up a prescribed cash margin with a broker in the other market who adds the profits or deducts the losses from the margin each day.¹⁰ In reality then, although the miller has not closed his futures transactions, he has already realized the profit or the loss on them. Thus, the material cost for the period is the actual purchase price of the grain adjusted by the closed wheat futures, the open wheat futures, and the open flour bookings.

It was mentioned before that for balance-sheet purposes the inventory was valued at replacement cost and adjusted by bringing open transactions to market. This has the effect of attempting to bring the inventory back to a cost basis.¹¹ It was also mentioned before that in the "cost of goods sold" section of the profit-and-loss statement, the inventory was valued at replacement. It would seem that there is an inconsistency in the valuation of inventories for balance-sheet purposes and

⁸ *Standard Cost Bulletin No. 15, op. cit.*

⁹ Bureau of Internal Revenue, *Cumulative Bulletin No. 5, 1922.*

¹⁰ *Ibid.*, p. 73.

¹¹ For a detailed discussion of this see, Joseph Pelij, "Valuation of Flour Mill Inventories," *Journal of Accountancy*, July, 1939, pp. 35-47.

for profit-and-loss purposes. In any actual situation it is impossible to bring the inventory back to an actual cost basis by adjustments of open transactions. The difference between the final inventory figure and the actual cost of the wheat represented by that inventory will be the gain or loss on the closed wheat-futures transactions. This profit or loss shows up on the balance sheet as an increase or decrease in cash or other assets. Thus, although the inventory is not brought back to the original cost, the assets are, which amounts to the same thing. This gain or loss also appears on the profit-and-loss statement in the "cost of goods sold" section. It decreases or increases the cost of goods sold and by doing so affects the profit. Therefore, it can be seen that this gain both adjusts the "cost of goods sold" and is tied into the balance sheet.

On the other hand, it might be said that on the balance sheet the inventory is adjusted for open contracts while on the profit-and-loss statement the inventory is valued at replacement value. This is true, but it has been noted that the profit-and-loss statement is also adjusted for "open transactions." This has the same effect on the final profit or loss as if the inventory had been adjusted. Thus, it can be seen that although inventories are valued a little differently on the two statements, because of various adjustments that were mentioned, the net result is the same as if the inventories had been valued alike.

MATCHING

Because the flour-milling industry does make these adjustments of profits and losses on open and closed transactions, I believe that, although replacement costs are used, it is actually matching costs with revenues. A few simple examples will demonstrate that this is a fact.

In these illustrations the same facts will be used as much as possible. The company

will be divided into two departments, the milling department and the grain department. The grain department will handle all purchases of grain and all hedges. Of course, for the purchase of grain it will be in close touch with the milling department. Then, when the milling department wants any grain it will "purchase" it from the grain department at the current market price, and at the same time the grain department will close an equal number of bushels of wheat futures contracts. These intracompany sales are known as "grain contracts." The milling department will in effect purchase grain or enter into a grain contract with the grain department every time it obtains some flour bookings. At the end of any accounting period a profit-and-loss statement will be made for each department. To get a truly accurate picture of the profit of the business as a whole, the two profit-and-loss statements will have to be combined. With these facts in mind let us now proceed with our examples.

Example 1. In all examples it will be assumed that there are no beginning inventories. The grain department purchases 20,000 bushels of wheat at \$1.00 a bushel and sells 20,000 bushels of wheat futures at \$.95. When the cash market is still at \$1.00 and the futures market is at \$.95, the milling department sells enough flour to use 10,000 bushels of wheat. The milling department then enters into a "grain contract" with the grain department for the necessary wheat. It takes the wheat at the same price, mills it into flour, and delivers the flour to its customer. This is the only transaction for the period. The books are closed with the spot market still at \$1.00 and the futures market at \$.95. Here there can be no doubt about the matching of costs and revenues. The revenue for the period was the actual amount received for the sale of the flour, and the cost was the cost of the wheat (\$10,000), plus the

cost of labor, overhead, selling, and administration. In these examples we are concerned with only raw material cost.

Example 2. Assume the flour booking is made when the cash market is \$.90 and the wheat-futures market is \$.85. In this case the milling department will enter into a grain contract with the grain department when cash wheat is \$.90. The grain department will now close 10,000 bushels of wheat futures at \$.85, with a profit of \$1,000 on its wheat-futures transactions. The books are closed with the spot market still at \$.90 and the futures market at \$.85. Assume also that the entire flour or-

This example shows that when it takes into consideration both the open and closed transactions, the matching process is valid. As was said before, selling, administrative, and production expenses are left out of these examples. Also, in any concrete situation, some milling profit would be expected. That is not taken into account here.

Example 3. In this case assume the same transactions as in the above except that only 5,000 bushels of wheat has been milled and this flour delivered. Also assume that the books are closed when the cash market is \$.80 and the futures market is \$.75. The

Sales (flour from 10,000 bu. wheat).....	\$9,000	
Cost of Sales (10,000 bu. wheat @ \$.90 bu.).....	9,000	
	<u>000</u>	
Sales (10,000 bu. wheat @ \$.90).....		\$9,000
Beginning Inventory (none).....		
Purchases (20,000 bu. wheat @ \$1.00).....	\$20,000	
Deduct Profit on Futures closed (a) (10,000 bu. \times 10¢).....	<u>1,000</u>	19,000
Ending Inventory (10,000 bu. wheat @ \$.90).....		<u>9,000</u>
Cost of Goods Sold.....		10,000
Loss on Closed Transactions.....		1,000
Open Transactions.....		
Wheat futures to Market (b) (10,000 bu. \times 10¢) (gain).....		<u>1,000</u>
(a) Sold futures at.....	\$.95	
Purchased futures to close option at.....	<u>.85</u>	
Gain.....		\$.10
(b) Sold futures at.....	\$.95	
Present market is.....	<u>.85</u>	
Gain.....		\$.10

der has been delivered. Now note the separate profit-and-loss statements.

two profit-and-loss statements would look as follows:

Sales (Flour from 5,000 bu. wheat @ \$.90).....	\$4,500	
Cost of Sales (5,000 bu. wheat @ \$.90).....	<u>4,500</u>	
	000	
Open Transactions.....		
Flour Bookings to market (a) (5,000 \times 10¢) (add).....	\$500	
Grain Contracts to market (b) (5,000 \times 10¢) (deduct).....	<u>500</u>	
	000	
Sales (5,000 bu. wheat @ \$.90).....		\$4,500
Beginning Inventory (None).....		
Purchases (20,000 bu. wheat @ \$1.00).....	\$20,000	
Deduct: Profit on Futures closed (c) (10,000 \times 10¢).....	<u>1,000</u>	19,000
Ending Inventory (15,000 bu. wheat @ \$.80).....		<u>12,000</u>

Cost of Goods Sold.....		7,000
Loss on Closed Transactions.....		2,500
Open Transactions		
Futures to Market (d) (10,000 bu. \times 20¢).....	\$2,000	
Grain Contracts to Market (e) (5,000 \times 10¢).....	500	
Gain on Open Transactions.....		<u>2,500</u>
		000
(a) Flour bookings made at.....	\$.90	
Cash wheat market is.....	.80	
Gain.....	<u>\$.10</u>	
(b) Grain contract purchased at.....	\$.90	
Could buy grain now at market.....	.80	
Loss.....	<u>\$.10</u>	
(c) Sold futures at.....	\$.95	
Purchased futures to close option at.....	.85	
Gain.....	<u>\$.10</u>	
(d) Sold futures at.....	\$.95	
Present market is.....	.75	
Gain.....	<u>\$.20</u>	
(e) Grain contract sold at.....	\$.90	
Cash wheat is now at market.....	.80	
Gain.....	<u>\$.10</u>	

In this case also, the validity of the matching process is apparent.

In any combination of these two statements to get the picture for the company as a whole, the grain contracts on both

statements would wash out, as would the sales on the grain statement and the purchases on the milling statement. The combined profit-and-loss statement would look like this:

Sales (Flour from 5,000 bu. of wheat @ \$.90).....			\$4,500
Beginning Inventory (none)			
Purchases (20,000 bu. wheat @ \$1.00).....	\$20,000		
Deduct: Profit on Futures closed (a) (10,000 \times 10¢).....	1,000	19,000	
Ending Inventory (15,000 bu. wheat @ \$.80).....		<u>12,000</u>	
Cost of Goods Sold.....			<u>7,000</u>
Loss on Closed Transactions.....			<u>\$2,500</u>
Open Transactions			
Futures to Market (b) (10,000 bu. \times 20¢).....	\$2,000		
Flour Bookings to Market (c) (5,000 \times 10¢).....	500		
Gain on Open Transactions.....		<u>2,500</u>	
		000	
(a) Sold futures at.....	\$.95		
Purchased futures to close option at.....	.85		
Gain.....	<u>\$.10</u>		
(b) Sold futures at.....	\$.95		
Present market is.....	.75		
Gain.....	<u>\$.20</u>		
(c) Flour booking made at.....	\$.90		
Cash wheat market is.....	.80		
Gain.....	<u>\$.10</u>		

It is granted that these examples are much simpler than any actual situation in the milling industry would be. Only a decrease in price has been illustrated here, while in reality increases in prices and both increases and decreases in the same period would occur in any actual situation. But although only one type of price movement was illustrated, it must be realized that the matching process is equally applicable to other types of price movements.

In all these examples it has been assumed that the hedging transactions were what might be called "perfect." That is, the gain or loss on the sale of a flour booking is exactly offset by a loss or gain on the closing out of the wheat futures contract. But such a situation is merely the ideal situation. Usually other factors enter in which keep the hedge from being a perfect

ket also affect the prices on the other market, but often not in the same degree. When this occurs, the hedge is not entirely perfect.

Another factor which may give a gain or loss in the wheat-futures transaction over the loss or gain on the flour bookings is the cash wheat premium. Many firms do not find that the grain used for futures transactions, No. 2 Dark Northern Spring, is suitable for their milling needs. Thus, although their futures transactions are made in terms of this grade, their cash wheat transactions are on a number of additional grades to insure them a milling mixture. These grades will sell at a higher price or at a "premium." Let us look at an example to explain this. On a certain day the grain position of a company is as follows:

Wheat Grades	Wheat Stocks	Flour Bookings	Over Sold	Under Sold	Today's Premiums
1	40,000	30,000		10,000	+.15
2	20,000	40,000	20,000		+.12
3	10,000	10,000			+.07
4	20,000	10,000		10,000	+.04
5	10,000	10,000			+.03
	100,000	100,000	20,000	20,000	

hedge. One of the factors which often causes the hedge to be imperfect is the spread between the futures and the spot market. For instance, if the spread at the time of the first transaction is five cents, then the spread must still be five cents when the transaction is closed in order to have a perfect hedge. Often the spread is a little more or a little less. Usually the factors which affect the prices on one mar-

ket here it can be seen that although the total position is a balanced one, the position when broken down by grades is not. It is quite obvious that such a condition would later interfere with milling needs. But let us continue, assuming that there has been no new business. At the close of the next business day the premium position as is follows:

Wheat Grades	Over Sold	Under Sold	Old Premium	New Premium	Change	Loss	Gain
1		10,000	+.15	+.16	+.01		\$100.00
2	20,000		+.12	+.12			
3			+.07	+.04	-.03		
4		10,000	+.04	+.02	-.02	\$200.00	
5			+.03	+.03			
	20,000	20,000				\$200.00	\$100.00
			Net Loss				\$100.00
						\$200.00	\$200.00 ¹²

¹² Standard Cost Bulletin No. 26, *op. cit.*

This example shows that changes in premiums may provide an extra gain or loss.

In addition to the factors mentioned above, other factors may cause an extra gain or loss to be realized. Often mills deal in more than one market. That is, a firm may trade in both the Chicago grain market and the Minneapolis grain market. The spreads in these markets may not coincide exactly. Again a firm may neglect to hedge some wheat entirely. Or they may hedge, but at a later date than the date of the cash purchase or the sale of the flour booking. For the hedge to cancel out perfectly, the two transactions must be made at the same time, or before there is any movement of the price in the futures market. Where this is not done, or where no

hedge is made at all, speculative gains or losses will occur.

The milling industry as a whole tries to eliminate these speculative gains or losses from its business. Thus, it will try to have its hedges as perfect as possible. But to the extent that they are not perfect, costs are not being matched exactly with revenues. That is, these extra gains or losses, due to variations in the spreads, etc., cannot be offset. But because these variations are small, and because over a long period of time they tend to offset each other, I believe that we can, although recognizing that they do exist, ignore them in our final conclusion. Therefore, it may be said that on the whole, the flour-milling industry although using replacement costs, is "matching costs with revenues."

THE ACCOUNTING EXCHANGE

AUDITING THE CONTINGENT LIABILITIES OF BRITISH BANKS

It would be a strange business that could exist for any length of time without incurring risks, but in justice to the reader it should be stated at the outset that this essay will be confined to the audit of banks and similar financial institutions. Insofar as the ordinary commercial house is concerned it would not be unfair to state that contingent liabilities are comparatively unimportant—the reason being, of course, that the direct liabilities that have definitely been incurred in the course of trading are usually much greater than the risks which may or may not arise as the result of some unforeseen contingency.

It is otherwise with the banker. Of course, he cannot at any time avoid undertaking liabilities; every time he takes money on deposit he does this. But he can and does arrange his affairs so that he can be sure of having the necessary liquid assets to hand to meet his obligations, and is prepared to stand or fall by his capacity to do so. Consequently, though his totals of assets and liabilities are frequently reminiscent of the mathematics of astronomy in their magnitude, they may not be danger-signals if the business is capably managed. In such cases the contingent liabilities assume an importance which, in a less conservative environment, would be considered unwarranted and exaggerated.

For audit purposes the contingent liabilities fall into three main groups:

1. The risk may be one whose limits are capable of exact assessment.
2. The risk may be there to see, but the bounds within which it can be confined are not capable of definition.
3. The risk may be entirely unforeseen in its nature and amount.

It will be observed that we have two classes of risk that can expect to receive

mention in a balance sheet or statement of condition, while the third can scarcely form any part of the accounting and audit control. It will be convenient if we deal with each of our three groups separately.

Limited risks

A banking company that holds partly paid stock or shares in a Limited-Liability Company is liable in case of need to pay up the "calls" made upon shareholders, and it is therefore easy to assess the bank's risk under this heading. The audit should include an inspection of the stock and a careful examination of its wording. The current accounting practice is to mention the amount for which the bank stands liable if a call of all the unpaid capital is made.

Similarly there are other banking operations which are limited in amount. These include the issue of letters of credit, the acceptance and endorsement of bills, the giving of bonds and so on, all of which are, in practice, well-defined and clearly limited to stated amounts. Again, if there is a disputed claim at law the bank is usually well aware of the greatest amount which they are likely to have to find—if it loses the case.

Risks not specifically limited

Banks frequently find themselves signing documents like guarantees where it is possible to fix a limit beyond which they free themselves from liability. But it is not always possible to protect themselves in this way. For example, a customer may have an incomplete set of shipping documents, which the bank is called upon to handle. In passing these on to a third party (as, for example, when the bank as a collecting agent presents them to another bank for payment) it may be requested to produce the missing documents or an

indemnity in lieu thereof. The only kind of indemnity of any use at all will need to read: "... and we undertake to hold you indemnified against *any loss or damage* you may sustain. . . ."

The italicized words show clearly how wide the liability is spread. It is useless to treat such liabilities with any pretence of accountability. There is no figure that could validly express the possible loss that might arise. The auditor, it is suggested, must examine every case on its merits. Is it a fair trading risk? Has the possibility of a claim been given proper weight? Is the customer for whom the indemnity was given credit-worthy? Was the bank's action justified in the light of current banking experience and practice? Should the bank's stockholders be specifically advised of the existence of the risk, or may they be presumed to have condoned it (or delegated their responsibility for it) to the board of management when they bought their holdings?

Unforeseen risks

We come now to the most intangible class of contingency. However, the auditor's duty is plain, and beyond making quite sure that the higher officials of its bank appreciate the possibility of loss under this heading he can do very little. For example, every bank runs the risk that a careless action by one of its officers may give rise to legal claims for the consequences of negligence. This risk alone is but one of a great genus, against which no system of indemnity insurance yet devised can act as a perfect safeguard.

So classified the contingent liabilities do not present an entirely satisfactory subject for bookkeeping. In respect of those risks in the first category it is the British practice to pass entries for the maximum amount to which the risk might extend. Turning to the third group it is clear that the whole idea of expressing such shadowy

conceptions in terms of figures is ridiculous, and is, in fact, never attempted. Current practice with the second class of risk varies. Generally speaking, the banks attempt to assess the maxima of their liabilities under this heading by assuming that while the limit of legal liability may be larger than the figure chosen to represent it, yet the commonsense—if you like, practical—mind argues that the probabilities are of greater moment than the remote possibilities.

Let us suppose that a bill of exchange is lost and the bank is asked to give an indemnity to the drawer in order to obtain a copy. So long as that undertaking exists the bank will have a bookkeeping entry in its "Impersonal" ledger in witness of the fact. It should be stated in parentheses, that such indemnities normally carry a time limite even if this be only the accepted legal or conventional one in which bills of exchange may be regarded as overdue and "stale." The bank's liability on "Guarantees, Endorsements and Engagements" is swollen by the face amount of the bill until this period expires. Now it is open to the over-cautious to point out that the possibility of two bills of exchange being in existence for one debt may have unconsidered effects, in which the bank whose instrument of indemnity created the second (or duplicate) bill of exchange may well be involved and it is not certain that the face amount of the bill represents finality of ultimate possible liability. One can imagine bizarre conditions in which this might be true, but ordinary folk like bankers and accountants may be pardoned for sticking to facts rather than being lured by fantasies.

We are now a little clearer as to current practice; where the risk and its limitations are known it is entered in the books of the bank. Where these limitations are not known with absolute certainty, yet they can be gauged in a manner satisfactory to

the ordinary shrewd business man, the estimated limits of liability are also posted in the books. Where the risk cannot be pinned down to any particular figure, or where the bank has no knowledge of any happening likely to occasion a risk of loss (our "unforeseen" contingencies), then in these two cases no entries are passed in the books at all. It is as if the bank accountant would say to stockholders and depositors, "We have to carry on our business and that means that all sorts of contingencies will arise in which we might find ourselves liable to pay out your money. I can tell you the utmost (yet the most improbable) amount you will have to risk in this way, but only in regard to certain classes of business where my ledger-keepers are able to help met to compute them for you. But there are others not so tangible" (here a shrug of the shoulders would be appropriate). "We must run risks and cannot always tell you how far we are likely to become involved."

In order to establish the accuracy of the totals that are given in the annual accounts the following brief notes for the professional auditor may be of assistance:

1. *Liability for calls on shares:* As mentioned, inspect the bank's actual holdings.

2. *On acceptances granted, credits opened, etc:* These should be numbered and entered in a register which should be initialed by the officer signing the acceptance or letter of credit. The total should be agreed against the accounts, after "ticking back" those purported to have matured or otherwise expired.

3. *On forward exchange contracts:* Check registers against statements sent out to customers and correspondent banks.

4. *On endorsements, engagements, guarantees:* The signing of these undertakings should be registered in a special memorandum book with which the liability account must be compared. In the case of special guarantees (for example, where a bank has

guaranteed the shareholders in a subsidiary institution a fixed dividend) the auditor will doubtless recommend that the gross liability in this particular case be shown separately on the annual accounts, and this statement, must, of course, be verified by the documents passing between the two companies.

Space forbids the consideration in detail of every risk that is likely to form a contingent liability, nor is it possible to analyze them adequately here. The reader is referred (with, it is hoped, a becoming difference) to the present writer's small work "The Contingent Liabilities of the English Commercial Banks"¹ for a more comprehensive survey of the subject. The profession of auditing is one which makes exacting demands on its members, requiring deep knowledge of the innermost processes of all business activity. If this brief essay can lend a puzzled colleague a helping hand at the right moment then it will have done all it can ever have hoped to accomplish.

H. C. F. HOLGATE

A NOTE ON ACCOUNTING STANDARDS

The publication of Professors Paton and Littleton's *Introduction to Corporate Accounting Standards* raises the interesting question of the *approach* to financial accounting. This note will not go beyond this question, and, therefore, may not seem to be wholly fair towards the authors. In the space of a short note dealing with only one aspect of their work, this is unavoidable; but to redress this appearance of disparaging criticism, it should be mentioned that the monograph is one of the best expositions of accounting as a process of allocating historical costs since Schmalenbach's classical treatment in *Dynamische Bilanz*.

In one sense, a *standard* is a criterion against which to judge the quality of any

¹ Messrs Gee & Co. (Publishers) Ltd., London.

procedure actually adopted, or any result actually obtained. A house, the structure of which falls below the recognized building or sanitary standards, can be called a bad or unsound house. An audit, which falls short of the standard audit recognized by the profession, can be called an inefficient audit. Standards here are minimum requirements; in some senses, the dividing line between good and bad performances.

The authors of this monograph accept this view of the meaning of the term *standard* in some places. On p. 2 they state that "accounting standards therefore become responsible for furnishing guideposts to fair dealing in the midst of flexible rules and techniques," and on p. 6 they repeat that "standards should serve as guideposts to the best in accounting reports." And they clearly state that the standards need not necessarily reflect accepted practice, "but may be the state of affairs to which, it is hoped, actual practice will gradually gravitate."

It is clear that standards required in "human-service" institutions, such as accounting, are necessarily set up with reference to the purpose to be served by the particular employment of the institution. Engineering or building standards are to a great extent determined by the proposed use of the finished product. A machine which is up to the standard for one purpose may be quite inadequate for another purpose. The degree (or standard) of accuracy required in statistical computations for some purposes may be quite superfluous for others.

It follows that accounting standards should be established within the context of the given purpose to be served by accounting. Standards appear to be meaningless unless related to specific purposes. And on the subject of the purpose(s) of accounting the pronouncements of the authors are of special interest. Their pronouncements are of three types.

First, on p. 4 the function of accounting is conceived as "a means of expressing the financial facts of business in a significant manner," and on p. 18 the function is said to be "supplying dependable information." These two statements appear to be tautological, because accounting is the recording and supplying of information. The way the information is recorded, and the kinds of information supplied are the important considerations. These may conceivably vary with the uses to which the accounting documents are put.

Second, accounting is said to "represent a practical tool of business and finance, competent to meet the legitimate needs of managers, investors, government, and the public at large" (pp. 4-5). This view, and the detailed consideration of the users of accounting, suggest that accounting documents are designed to serve several purposes, or meet the needs of several parties, simultaneously. This raises the immediate difficulty that an accounting procedure which is excellent for one purpose may be entirely unsuitable for other purposes. No one expects that income taxes should be calculated according to the procedures adopted when determining the amount available for dividends (e.g., the government's rate of depreciation may be inadequate); or the level of prices to be charged by a controlled public-utility enterprise. The conflict of purposes is indeed serious. The customary accounting rules for determining profits available for dividends need not necessarily ensure fair dealing for different classes of shareholders. A calculation designed to show the economic efficiency of enterprises to facilitate the desirable flow of capital will not necessarily be a sound basis for the payment of dividends. It may be necessary to equalize inventory gains and losses for some purposes, and to include them in the income statement for others.

If accounting is regarded as an all-pur-

pose or many-purpose tool, it is impossible to appraise the merits of the suggested accounting standards in any logical way, unless the various uses are ranged in some order of priority, assigning weights of importance to each use. The authors nowhere clearly state the relative urgency of the various requirements, and hence afford no ground upon which to judge the suitability of their standards. If a structure is built to serve, at different times, as a domestic dwelling, a factory, a dance-hall, and a cinema, it is impossible to gauge its usefulness unless one knows the relative importance of the various uses.

The authors' third type of statement suggests that accounting procedures are not directly attuned to the satisfaction of particular requirements. Accounting is defined, not with reference to given purposes, but with reference to its historically determined problems and methods. The typical statement is that "the primary purpose of accounting . . . is the measurement of periodic income by means of a systematic process of matching costs and revenues" (p. 123). True, the measurement of income in this particular way may be of interest to all parties. But this definition leaves the main question unanswered: Why is it the purpose of accounting to measure income in this particular way? If it is said that accounting is the application of certain statistical techniques, then there is no possible basis for judging the standards, because the controversial issue is disposed of by the basic definition. If one defines the purpose of building as the use of bricks, then the use of steel cannot, by definition, be considered good or standard building practice.

The authors do not give any decisive grounds for convincing the readers that their suggested standards are desirable. They do not state the function(s) of accounting with which they are concerned, and they choose procedures as standards

without linking them up with any clear-cut function of accounting. They say, in effect, that it is better to build with bricks, without telling the reader in precise terms what the building is supposed to represent.

Of course, the term *standard* has another, though in some ways similar, meaning. In some contexts, *standards* are definitions. The standards of weights and measures are clear explanations of the characteristics of these weights and measures. A pound is the weight of a certain piece of metal under certain physical conditions. The standard does not indicate whether a pound weight is good or bad in any sense: it determines whether or not it is a pound weight.

In at least one place the authors seem to accept this meaning of the term *standard*. They say: "In essence, a scheme of accounting standards should consist simply of an explanation of what accounting attempts to tell the interested parties through the medium of reports of financial position and results of operation" (p. 5). In other words, standards should define what accounting documents stand for, so that interested parties may be better informed. Like all standards (in this sense) accounting standards should facilitate intercourse between interested parties. If the housewife asks for a pound of meat the butcher knows how much she wants without any difficulty. Similarly, if there are accepted accounting standards anyone acquainted with them would be able to interpret accounting reports correctly.

Even if this view of *standards* had been consistently adopted by the authors, the difficulty about the purpose of accounting is still present. If their scheme of accounting standards is generally accepted and understood, then the user of accounting statements will know precisely what they represent. But will they satisfy his needs as efficiently as would alternative statements incorporating different, nonstand-

ard accounting procedures? Standards are merely statements of facts (in this sense). The standard of a pound weight tells us what a pound of butter is; but it does not imply that a pound of butter will be suitable for any or all domestic purposes.

In conclusion, it seems as if Professors Paton and Littleton, in common with most writers on accounting, have paid too little attention to the purposes of accounting,

which, it is submitted, is the most important factor determining the methods and scope of a "human-service" institution like accounting. A mere statement of the users of accounting is not sufficient, because different users may require different methods. To ignore the question of function is to put the cart before the horse.

B. S. YAMEY

PROFESSIONAL EXAMINATIONS

A Department for Students of Accounting

HENRY T. CHAMBERLAIN

THE FOLLOWING problems, prepared by the Board of Examiners of the American Institute of Accountants, were presented as the first part of the examination in accounting theory and practice held in the coöperating states on May 15th and 16th. The two parts of the examination were each given a total weight of 50 points and the examinees were allowed six hours for each part. The weights assigned to the problems in Part I were:

problem 1, 16 points; problem 2, 16 points; problem 3, 10 points; problem 4, 8 points.

No. 1

From the following balance sheets, profit-and-loss accounts and other data, prepare intelligible columnar work sheets showing the consolidation of the accounts, minority interests, earned surplus at beginning, and profit and loss.

BALANCE SHEETS DECEMBER 31, 1940

	Phoenix Co.	Eastern Airports Inc.	Potomac Airport Co.
Assets			
Cash.....	\$ 428,000	\$ 14,500	\$ 500
Accounts receivable.....		45,000	8,500
Prepayments and supplies.....	5,000	26,500	
Investment in U. S. Airlines Co. stock.....	630,000		
Investment in Eastern, Inc., stock.....	270,000		
Loans to Eastern, Inc.....	370,000		
Investment in Potomac Co. common stock.....		180,000	
Land.....		284,000	215,500
Buildings and equipment.....		310,000	
Reserve for depreciation.....		50,000*	
	<u>\$1,703,000</u>	<u>\$810,000</u>	<u>\$224,500</u>
Liabilities			
Accounts payable.....	\$ 15,000	\$ 10,000	\$
Taxes and other accruals.....		24,000	
Due Phoenix Co.....		370,000	
Due Potomac Co.....		8,500	
Capital stock—preferred.....			40,000
Capital stock—common.....	500,000	225,000	200,000
Paid-in surplus.....	500,000	150,000	
Earned surplus.....	688,000	22,500	15,500*
	<u>\$1,703,000</u>	<u>\$810,000</u>	<u>\$224,500</u>

* Deductions.

PROFIT-AND-LOSS ACCOUNTS—1940

Income			
Rent.....	\$	\$	\$ 8,500
Profit on sales of securities.....	165,000		
Revenue from port activities.....		75,000	
Dividends.....	25,000		
Interest.....	48,000		
	<u>\$ 238,000</u>	<u>\$ 75,000</u>	<u>\$ 8,500</u>

Expenses			
Interest.....	\$	\$ 18,000	
General, including taxes.....	75,000	46,000	\$ 2,000
Loss on sale of hangar.....			3,000
	\$	\$	\$
	75,000	64,000	5,000
Net income.....	\$ 163,000	\$ 11,000	\$ 3,500

OTHER DATA

- (1) Phoenix Co. owns 36,000 shares of the stock of Eastern Airports, Inc. Of this holding 21,000 shares were acquired by subscription at time of issue (January 1, 1937) at \$10 per share. Additional 3,000 shares of Eastern, Inc., stock were purchased on December 31, 1938, at \$20 per share; at this time the stock equity of Eastern Airports, Inc., stood as follows:

Capital stock—stated value (\$5 per share).....	\$150,000
Paid-in surplus.....	150,000
Earned surplus.....	100,000
	<u>\$400,000</u>

As of January 1, 1939, Eastern Airports, Inc., declared a stock dividend of \$75,000 (15,000 shares at \$5 per share) which was appropriated from earned surplus.

- (2) Eastern Airports, Inc., owns 90 per cent of the common stock of Potomac Airport Co. acquired on December 31, 1938, at a total cost of \$180,000. At this time the accumulated operating deficit of Potomac was \$14,000 but preferred dividends had been paid to date.
- (3) No dividends were paid by Phoenix Co. in 1940.
- (4) No dividends (other than the stock dividend referred to above) were declared by Eastern Airports, Inc., during the years 1939 and 1940.
- (5) No dividends were declared on the preferred stock of Potomac Airport Co. for the two years, 1939-1940. This is a 6 per cent cumulative stock.
- (6) The interest charge on the books of Eastern Airports, Inc., is entirely applicable to the advances made by the Phoenix Co.
- (7) All of the revenues of Potomac Airport Co. for 1940 are based on charges to Eastern Airports, Inc., not yet collected.
- (8) All investment accounts shown are recorded on a cost basis, with no adjustments for intercompany profit, loss, or dividends.

No. 2

From the following data prepare a statement of operating results of the Zinc Mining and Milling Company in October that will show the operations on the company's own account and its activities in furnishing milling services to others, both for zinc and for lead concentrates. Present all supporting schedules. Carry computations to the third decimal.

The Zinc Mining and Milling Co. operates several mines and a mill for concentrating ore. The ore as it comes from the mines must be concentrated in the mill before being shipped to the smelters. The resulting zinc and lead concentrates amount to about 5 per cent to 7 per cent of the original weight. Both kinds of concentrates go through substantially the same milling processes. Zinc concentrates contain about 60 per cent zinc, while lead concentrates contain about 80 per cent lead.

The company, in addition to milling the rock produced in its own mines, does commercial milling for other mines in the neighborhood, accepting as compensation 20 per cent of the concentrates produced. The amount of concentrates produced from the ores thus brought in is determined by assaying each carload of rock as it is received. This is necessary because (a) the ores from different mines differ in richness and (b) it is not practicable to mill different batches of ore separately.

The mining land and ore deposits are not owned by the company. A royalty of 12 per cent of the selling price of concentrates produced from company ores must be paid to the owners. This royalty accrues as the concentrates are sold, royalty expense being charged and accounts payable credited at the end of the month in which sales are made.

The company develops its own power which is used 40 per cent for mining operations and 60 per cent in the mill.

Inventories of partially mined rock and of rock in process in the mill are constant and may be ignored for the purposes of this problem.

The following operating data are presented:

Cost of mining.....	\$31,356
Cost of milling.....	11,326
Cost of power.....	6,292
General management.....	5,586
	<u>\$54,560</u>

(The above costs include all labor, supplies, expenses, and depreciation.)

	Tons	Valued at
Mined rock on hand October 1st...	500	\$ 615
Rock mined and brought to the surface in October.....	27,600	
Mined rock on hand October 31st..	1,500	
Rock owned by others milled in October.....	4,600	
Concentrates on hand October 1st:		
Zinc—own product only.....	150	\$ 3,900
Lead—own product only.....	50	1,800
Concentrates produced in October, both own and for others:		
Zinc.....	1,810	
Lead.....	187	
Concentrates delivered to others after retaining company's share:		
Zinc.....	216	
Lead.....	24	

Concentrates on hand October 31st:	
Zinc—own product only.....	125
Lead—own product only.....	20
Sales of concentrates in October:	
Zinc.....	\$66,379
Lead.....	11,001
Market price per ton of concentrates October 31st:	
Zinc.....	\$ 42
Lead.....	58

It is understood that the mining and milling expenses will be apportioned to the cost of zinc and lead concentrates on the basis of their sales value (known as the "joint-product method") and that the general-management expenses will not be absorbed in the production costs.

No 3

Make observations and offer suggestions concerning (a) the form and substance of the accounts presented below, and (b) the treatment therein of "depreciation on appreciation."

CALIFORNIA SHIP COMPANY

BALANCE-SHEET DECEMBER 31, 1940

Assets

Capital assets:*		
Vessels.....	\$15,060,000	
Shore plant.....	515,000	
Inventory of steamer equipment.....	130,000	\$15,705,000
Investments in stocks of other companies (at or below cost).....		460,000
Unexpired insurance and other deferred items (net).....		125,000
Mixed claims awards receivable (reserved, per contra).....		2,220,000
United States Treasury notes (at cost; deposited with Treasurer of United States as collateral under lease agreement).....		50,000
Treasury stock (6,500 shares at par).....		650,000
Assets allocated to insurance fund:		
Cash in banks (including time deposits, \$325,000).....	\$ 550,000	
United States Treasury notes and bills (at cost).....	600,000	1,150,000
Current assets:		
Cash in banks and on hand.....	\$ 2,780,000	
United States Treasury bills (at cost).....	7,360,000	
Accounts receivable (including disaster and other claims recoverable).....	801,000	
Supplies.....	75,000	11,016,000
		<u>\$31,376,000</u>

Liabilities

Capital stock (authorized and issued 50,000 shares, par \$100).....		\$ 5,000,000
Current liabilities:		
Accounts payable.....	\$ 790,000	
Federal income taxes.....	1,802,000	2,592,000

Excess of revenue over disbursements on uncompleted voyages.....	690,000
Reserve for repairs.....	165,000
Reserve for claims.....	57,000
Reserve for mixed claims awards receivable.....	2,220,000
Reserve for insurance.....	1,150,000
Reserve for depreciation of vessels.....	12,805,000
Reserve for depreciation of shore plant.....	360,000
Capital surplus*.....	285,000
Earned surplus.....	6,052,000
	<u>\$31,376,000</u>

* Stated at cost except in case of four ships recorded at appraised values when acquired in 1937. The excess of appraised values over cost was credited to capital surplus and depreciation on appreciation has been accrued through charges to the operations. On December 31, 1940, the unamortized balance of the appreciation was \$290,000.

STATEMENT OF PROFIT AND LOSS

For the year 1940

Operating revenues.....	\$16,000,000
Operating expenses (excluding depreciation).....	12,650,000
	<u>\$ 3,350,000</u>
Other credits:	
Interest and dividends on investments.....	\$ 2,000
Excess of provision for self-insurance charged to operating expenses in 1940 over net losses in 1940.....	360,000
	<u>\$ 362,000</u>
Net profit (before depreciation and Federal income and excess-profits taxes).....	\$ 3,712,000
Gain from sale of capital assets (proceeds from sale of six ships in excess of book value).....	1,410,000
	<u>\$ 5,122,000</u>
Provision for depreciation.....	550,000
Total profit (including gain on sale of capital assets but before Federal income and excess-profits taxes).....	<u>\$ 4,572,000</u>
Provision for estimated Federal income and excess-profits taxes.....	1,760,000
Net profit for year.....	<u>\$ 2,812,000</u>

STATEMENT OF SURPLUS

For the year 1940

	<i>Earned</i>	<i>Capital</i>
Balance, December 31, 1939.....	\$3,585,000	\$610,000
Net profit for year.....	2,812,000	
Transfer from capital surplus to earned surplus of depreciation on appreciation charged against profits in 1940 (\$270,000) and of unamortized appreciation on vessels sold.....	320,000	320,000*
Excess of cost of 6,500 shares of Treasury stock purchased over par value.....	15,000*	5,000*
	<u>\$6,702,000</u>	<u>\$285,000</u>
Deduct—		
Dividends declared in 1940.....	650,000	
	<u>\$6,052,000</u>	

* Deduction.

No. 4

Give an outline of the statements that usually accompany a report covering the examination of the accounts of a municipality.

Solution to Problem 1

PHOENIX COMPANY AND SUBSIDIARIES

Work Sheet—Consolidated Balance Sheet

December 31, 1940

Assets	Phoenix Co.	Eastern Airport Inc.	Potomac Airport Co.	Debit	Eliminations Credit	Consolidated Balance Sheet
Cash.....	\$ 428,000.00	\$ 14,500.00	\$ 500.00			\$ 443,000.00
Accounts receivable.....	—	45,000.00	8,500.00		(G) 8,500.00	45,000.00
Prepayments and supplies.....	5,000.00	26,500.00	—			31,500.00
Investment in U. S. Airlines Co. stock.....	630,000.00	—	—			630,000.00
Investment in Eastern, Inc., stock (80%).....	270,000.00	—	—	(D) 63,464.00	(E) 313,464.00	20,000.00 (G)
Loans to Eastern, Inc., investment in Potomac Co., common stock (90%).....	370,000.00	—	—		(F) 370,000.00	—
Land.....	—	180,000.00	—		(C) 161,730.00	12,600.00 (G)
Buildings and equipment.....	—	284,000.00	215,500.00		(B) 5,670.00	499,500.00
	—	310,000.00	—			310,000.00
Total.....	\$1,703,000.00	\$860,000.00	\$224,500.00			\$1,991,600.00
Liabilities						
Accounts payable.....	\$ —	\$ 10,000.00	\$ —			\$ 10,000.00
Taxes and other accruals.....	15,000.00	24,000.00	—			39,000.00
Reserve for depreciation.....	—	50,000.00	—			50,000.00
Due Phoenix Co.....	—	370,000.00	—	(F) 370,000.00		—
Due Potomac Co.....	—	8,500.00	—	(G) 8,500.00		—
Capital stock:						
Phoenix Co.....	500,000.00	—	—			500,000.00
Eastern, Inc.....	—	225,000.00	—	(E) 180,000.00		45,000.00 M.
Potomac Co., preferred.....	—	—	40,000.00			40,000.00 M. Pfd.
Potomac Co., common.....	—	—	200,000.00	(C) 180,000.00		20,000.00 M. Com.
Paid-in surplus:						
Phoenix Co.....	500,000.00	—	—			500,000.00
Eastern, Inc.....	—	150,000.00	—	(E) 120,000.00		30,000.00 M.
Earned surplus, Decem-31, 1939.....	525,000.00	—	—		(D) 53,872.00	578,872.00 Consolidated earned surplus, Dec. 31, 1939.
Phoenix Co.....	—	—	—			968.00 M.
Eastern, Inc.....	—	11,500.00	—	(E) 3,872.00		2,140.00 M. Com.
Potomac Co.....	—	—	*19,000.00	(B) 6,660.00	(C) 19,260.00	*2,592.00 Consolidated net income for 1940.
Net income, 1940.....	163,000.00	—	—		(D) 9,592.00	172,592.00
Phoenix Co.....	—	—	—			2,398.00 M.
Eastern, Inc.....	—	11,000.00	—	(E) 9,592.00	(B) 990.00	110.00 M. Com.
Potomac Co.....	—	—	3,500.00	(C) 990.00	(A) 2,400.00	
Total.....	\$1,703,000.00	\$860,000.00	\$224,500.00			
Reserve for cumulative preferred dividends unpaid.....				(A) 4,800.00		4,800.00
						\$947,878.00 \$947,878.00 \$1,991,600.00

* NOTE: It is assumed that the preferred stock of Potomac Co. is preferred to the extent of par value plus unpaid dividends.

PHOENIX COMPANY AND SUBSIDIARIES

Work Sheet—Consolidated Profit and Loss

January 1, 1940 to December 31, 1940

	Phoenix Co.	Eastern Airport Inc.	Potomac Airport Inc.	Debit	Eliminations Credit	Consolidated Profit and Loss
Income:						
Rent.....	\$ 165,000.00	\$ 75,000.00	\$ 8,500.00	(I) \$ 8,500.00		\$ 165,000.00
Profit on sale of securities.....	—	—	—			75,000.00
Revenue from port activities.....	—	—	—			25,000.00
Dividends.....	—	—	—			48,000.00
Interest.....	—	—	—	(H) 18,000.00		—
Total.....	\$238,000.00	\$75,000.00	\$ 8,500.00			\$295,000.00
Expenses:						
Interest.....	\$ 75,000.00	\$18,000.00	\$ 2,000.00		(H) \$18,000.00	\$ 114,500.00
General, including taxes.....	—	46,000.00	3,000.00		(I) 8,500.00	3,000.00
Loss on sale of hangar.....	—	—	—			—
Total.....	\$ 75,000.00	\$64,000.00	\$ 5,000.00			\$117,500.00

Net income.....	\$163,000.00	\$11,000.00	\$ 3,500.00	(A) 2,400.00	\$177,500.00
Preferred-stock equity.....			2,400.00		2,400.00
Net income applicable to common stock...	\$163,000.00	\$11,000.00	\$ 1,100.00		\$175,100.00
Minority interest, common stocks.....		2,398.00	110.00		2,508.00
Consolidated net income.....	\$163,000.00	\$ 8,602.00	\$ 990.00		\$172,592.00

NOTE: The minority interest in Eastern Co. profits is computed as follows:

Net income of Eastern Co.....	\$11,000.00
Eastern Co.'s share of Potomac net income (90% of \$1,100.00)...	990.00
	<u>\$11,990.00</u>
20% of \$11,990.00.....	<u>\$ 2,398.00</u>

KEY TO ELIMINATIONS

- (A) To set up reserve for preferred dividends payable.
 (B) To adjust investment in Potomac Co. for decrease in common equity applicable to Eastern Co.
 (C) To eliminate 90% of the book value of the common stock of the Potomac Co. The book value is calculated as follows:

Capital stock.....	\$200,000.00
Deficit.....	15,500.00
Preferred dividends unpaid.....	4,800.00
	<u>\$179,700.00</u>

- (D) To adjust the investment in Eastern Co. for the increase in book value applicable to Phoenix Co.

First purchase

Book value, December 31, 1939

Capital stock.....	\$225,000.00
Paid-in surplus.....	150,000.00
Earned surplus, December 31, 1939.....	11,500.00
Adjustment (B).....	6,660.00

Total.....\$379,840.00

Book value, January 1, 1937.....300,000.00

Increase in book value.....\$ 79,840.00

70% of increase applicable to first purchase.....\$55,888.00

Net income for 1940:

Per statement.....	\$ 11,000.00
Add adjustment (B).....	990.00

Total.....\$ 11,990.00

70% of \$11,990.00 applicable to first purchase.....8 393.00

Second purchase

Book value, December 31, 1938 (per problem).....	\$400,000.00
Book value, December 31, 1939 (as above).....	379,840.00

Decrease in book value.....\$ 20,160.00

10% of decrease applicable to second purchase.....2,016.00

10% of net income for 1940 (as above) applicable to second purchase.....1,199.00

\$63,464.00

- (E) To eliminate 80% of the book value of Eastern Co. The book value is computed as follows:

Professional Examinations

219

Capital stock.....	\$225,000.00
Paid-in surplus.....	150,000.00
Earned surplus, December 31, 1940.....	11,500.00
Net income, 1940.....	11,000.00
Adjustment (B).....	5,670.00
Total.....	\$391,830.00
80% of \$391,830.00	\$313,464.40

(F) and (G) To eliminate intercompany receivables and payables.

(H) and (I) To eliminate intercompany income and expense accounts.

Solution to Problem 2

Mining cost

Direct costs.....	\$31,356.00
Power cost (40% of \$6,292.00).....	2,516.80
	<u>\$33,872.80</u>
Tons mined.....	27,600
Cost per ton.....	\$ 1.227
Mined rock on hand, October 31, 1,500 tons @ \$1.227.....	1,840.50

Cost of mined rock milled

500 tons @ \$1.23.....	\$ 615.00
26,100 tons @ \$1.227+.....	32,032.30
	<u>\$32,647.30</u>

Milling cost

Direct costs.....	\$11,326.00
Power cost (60% of \$6,292.00).....	3,775.20
	<u>\$15,101.20</u>

	Zinc	Lead	Total
Total concentrate.....	1,810 T	187 T	1,997 T
Produced for others.....	270 T	30 T	300 T
Produced from own ore.....	<u>1,540 T</u>	<u>157 T</u>	<u>1,697 T</u>

Allocation of milling costs:

Concentrates from own ore (1697/1997 of \$15,101.20).....	\$12,832.62
Concentrates from ore of others (300/1997 of \$15,101.20).....	2,268.58
	<u>\$15,101.20</u>

Concentrates sold

	Zinc	Lead
On hand, October 1.....	150 T	50 T
Produced from own ore.....	1,540 T	157 T
For milling ore of others.....	54 T	6 T
	<u>1,744 T</u>	<u>213 T</u>
On hand October 31.....	125 T	20 T
Sold.....	<u>1,619 T</u>	<u>193 T</u>
Sales.....	\$66,379.00	\$11,001.00
Selling price per ton.....	41.00	57.00

Sales value of concentrates

Produced from own ore

Zinc: 1,415 tons sold @ \$41.00 per ton	\$58,015.00	
125 tons in inventory at October 31, @ \$42.00 per ton	5,250.00	\$63,265.00
Lead: 137 tons sold @ \$57.00 per ton	\$ 7,809.00	
20 tons in inventory at October 31, @ \$58.00 per ton	1,160.00	8,969.00
Total		<u>\$72,234.00</u>

Company's share of concentrates produced from ore of others

Zinc: 54 tons sold at \$41.00 per ton	\$ 2,214.00	
Lead: 6 tons sold at \$57.00 per ton	342.00	
Total		<u>\$ 2,556.00</u>

Allocation of production costs

Produced from own ore

Cost of mined rock milled	\$32,647.30	
Milling cost allocated to concentrates from own ore	12,832.62	
Total		<u>\$45,479.92</u>
Zinc—63265/72234 of \$45,479.92	\$39,832.86	
Lead—8969/72234 of \$45,479.92	5,647.06	
		<u>\$45,479.92</u>

Company's share of concentrates produced from ore of others

Milling cost allocated to concentrates produced from ore of others	\$ 2,268.58	
Zinc—2214/2556 of \$2,268.58	\$ 1,965.23	
Lead—342/2556 of \$2,268.58	303.35	
		<u>\$ 2,268.58</u>

Inventory of concentrates

Unit costs:

Zinc—\$39,832.86 ÷ 1,540 = \$25.865 per ton
Lead—\$ 5,647.06 ÷ 157 = \$35.969 per ton

Inventory:

Zinc—125 tons @ \$25.865	\$ 3,233.13
Lead—20 tons @ \$35.969	719.38
	<u>\$ 3,952.51</u>

Computation of royalties

On zinc concentrates

Sales	\$66,379.00	
Less sales of concentrates from ore of others	2,214.00	
Sales from own ore	<u>\$64,165.00</u>	
Royalties (12% of \$64,165.00)		\$ 7,699.80

On lead concentrates

Sales	\$11,001.00	
Less sales of concentrates from ore of others	342.00	
Sales from own ore	<u>\$10,659.00</u>	
Royalties (12% of \$10,659.00)		1,279.08
		<u>\$ 8,978.88</u>

Cost of sales of concentrates from company's ore

Zinc:		
150 tons @ \$26.00 per ton	\$ 3,900.00	
1,415 tons @ \$25.865 per ton	36,598.98	\$40,498.98

Lead:		
50 tons @ \$36.00 per ton.....	\$ 1,800.00	
137 tons @ \$35.969 per ton.....	4,927.75	6,727.75
		<u>\$47,226.73</u>

Reconciliation of costs

Cost of mining.....	\$31,356.00
Cost of milling.....	11,326.00
Cost of power.....	6,292.00
Mined rock on hand, October 1st.....	615.00
Zinc concentrates on hand, October 1st.....	3,900.00
Lead concentrates on hand, October 1st.....	1,800.00

Total..... \$55,289.00

Cost of zinc concentrates sold from own ore.....	\$40,498.98
Cost of lead concentrates sold from own ore.....	6,727.75
Cost of milling allocated to ore of others.....	2,268.58
Mined rock on hand, October 31st.....	1,840.50
Zinc concentrates on hand October 31st.....	3,233.13
Lead concentrates on hand October 31st.....	719.38

Total..... \$55,288.32

Fractional differences \$.68

ZINC MINING AND MILLING COMPANY
Statement of Profit and Loss—Month of October, 1940

	ZINC		LEAD		Total
	Company's ore	Company's share of ore milled for others	Company's ore	Company's share of ore milled for others	
Sales.....	\$64,165.00	\$2,214.00	\$10,659.00	\$342.00	\$77,380.00
Cost of sales.....	40,498.98	1,965.23	6,727.75	303.35	49,495.31
Gross profit.....	<u>\$23,666.02</u>	<u>\$ 248.77</u>	<u>\$ 3,931.25</u>	<u>\$ 38.65</u>	<u>\$27,884.69</u>
Expenses:					
Royalties.....	<u>\$ 7,699.80</u>		<u>\$ 1,279.08</u>		\$ 8,978.88
General management.....					5,586.00
					<u>\$14,564.88</u>
Net income, month of October 1940.....					<u>\$13,319.81</u>

COMMENT

The total cost of the milling operation (\$15,101.20) is divided between the company's own ore milled and the ore milled for others on the basis of the number of tons of concentrates produced. The problem states that "both kinds of concentrates go through substantially the same milling processes"; therefore the tonnage basis rather than the "value" basis seemed more appropriate for this allocation. Further, the company would undoubtedly be interested in knowing the actual cost of ore milled for others rather than a "cost" de-

termined by apportioning on the basis of sales values.

Solution to Problem 3

(a)

Balance Sheet

1. The vessels should be shown on the balance sheet at cost. If it seems desirable to show appraised values those values should be shown parenthetically or as footnotes. If appraised values are entered in the accounts (an objectionable practice) the revaluation surplus should be regarded as a valuation account and should be deducted from the

- asset to arrive at the unamortized cost.
2. The reserves for depreciation of vessels and shore plant should be deducted from the assets to which they apply.
 3. A regular depreciation policy should be followed with respect to steamer equipment.
 4. The item "Investment in stocks of other companies" needs further explanation. If the investments are in controlled companies a consolidated balance sheet should accompany the balance sheet of the company or balance sheets of the subsidiaries should be furnished. If the investments are not in controlled companies the market value should be indicated. From the item in the income account "interest and dividends on investments" it would appear that the investments are overvalued.
 5. The account, "unexpired insurance and other deferred items (net)" should be analyzed. Prepaid expenses should be shown separately; deferred charges, such as organization expense, should be shown separately, and losses, if any, included in the account should be written off. The meaning of "net" is not clear. If deferred income has been implied against the deferred debits the amount should be taken out and shown as a liability.
 6. The reserve for mixed claims awards receivable should be deducted from the asset to which it applies.
 7. The U. S. Treasury notes should be shown at cost less premium amortized. The market value should be indicated.
 8. Treasury stock is not an asset and should be shown at cost as an unallocated reduction in capital stock and surplus. In this connection it should be noted on the balance sheet that surplus is restricted to the extent of the cost of the treasury shares.
 9. U. S. Treasury notes and bills should be shown at cost less premium amortization, if any. The market value should be indicated.
 10. U. S. Treasury bills shown in the current assets should also have the market value indicated.
 11. Accounts receivable from customers should be shown separate from disaster and other claims recoverable. Apparently no provision has been made for uncollectible accounts.
 12. The Federal income-tax liability is in excess of the current provision. Such excess may be an additional assessment for a prior year and if so it should be shown separately.
 13. The account "excess of revenue over disbursements on uncompleted voyages" should be analyzed. The gross revenue should be shown as a liability while expenditures should be shown as prepaid expenses.
 14. If the "reserve for repairs" is a provision for ordinary repairs made for the purpose of smoothing out the repair charge it should be regarded as a part of earned surplus. Such smoothing devices should be discouraged.
 15. The "reserve for insurance" should be shown as earmarked earned surplus.
 16. Capital surplus should be credited for \$5,000.00 (the offsetting debit to treasury stock) and the total, \$290,000.00 should be deducted from the net value of the vessels.
 17. Earned surplus should be credited for \$15,000.00 (the offsetting debit to treasury stock).
 18. A suggested set-up for the balance sheet would be:

ASSETS

Current assets
 Prepaid expenses
 U. S. Treasury notes deposited with
 U. S. Treasury
 Investments

Fixed assets (less reserves for depreciation and capital surplus)
 Insurance fund assets
 Mixed claims receivable (less reserve)

LIABILITIES

Current liabilities (including under this heading the reserve for claims)
 Deferred income
 Capital stock and surplus
 Capital stock
 Earned surplus
 Reserve for insurance
 Reserve for repairs
 Less treasury stock at cost

STATEMENT OF PROFIT AND LOSS

19. Operating expenses should include depreciation but should not include a charge for self-insurance or a provision for repairs.
20. Interest and dividends on investments should be shown as separate items.
21. The gain on the sale of capital assets is understated by \$50,000.00 due to the inclusion in the accounts of the assets sold appreciation amounting to \$50,000.00.
22. Depreciation charged to profit and loss should be based on cost.
23. Details of operating revenues and operating expenses should be shown.

SURPLUS STATEMENTS

24. Earned surplus should be increased by \$15,000.00 as stated in (17).
25. Capital surplus should be increased by \$5,000 as stated in (16).

(b) The company is following the practice of basing the depreciation charge to profit and loss on the appraised value of the property. This is the procedure suggested by the Committee on Accounting Procedure of the American Institute of Accountants in its research bulletin number 5.

However, in the comments above it is suggested that the charge should be based on cost rather than on the appraised value, and that a revaluation surplus account be regarded as a valuation account and shown as a deduction from the asset. The Committee on Accounting Procedure did not deal with the treatment of the revaluation surplus.

Solution to Problem 4

The following funds are those usually found in municipal accounts:

1. General or corporate fund
2. Capital or fixed property fund
3. Bond funds
4. Sinking funds
5. Trust and agency funds
6. Special-assessment funds

Other funds less frequently found are:

7. Utility funds
8. Special revenue funds

Separate sets of statements should be prepared for each fund as follows:

- (a) Balance sheet
- (b) Analysis of charges in fund balance

In addition to these statements the report should contain the following statements for the various funds:

General fund

- (a) Statement of revenues, both actual and estimated
- (b) Statement of expenditures and encumbrances (actual) compared with appropriations

Capital fund

- (a) Statement showing changes in fixed assets
- (b) Statement of changes in general bonded debt

Bond funds

- (a) Summary of cash receipts and disbursements

Sinking funds

- (a) Summary of cash receipts and disbursements
- (b) Analysis of changes in reserve for retirement of sinking-fund bonds

Trust and agency funds

- (a) Summary of cash receipts and disbursements

Special assessment funds

- (a) Summary of cash receipts and disbursements

Utility funds

- (a) Statements of income and expense for each of the services

Special revenue funds

- (a) Statement of revenues, both actual and estimated
- (b) Statement of expenditures and encumbrances (actual) compared with appropriations.

In addition to the above statements, necessary supporting schedules and statistical data are usually included in the report.

A suggested time schedule for the above problems is given below:

Problem 1	90 minutes
Problem 2	120 minutes
Problem 3	60 minutes
Problem 4	45 minutes

COMMENTS FROM READERS

Following the publication in the March issue of the REVIEW of the solutions to Part II of the November, 1940, examination, a reader wrote to this department commenting on the solution to problem 2, as follows:

"In the consolidated problem the \$4,500 inventory profit will get into consolidated surplus twice; it remains in the parent company's surplus and gets credited to consolidated earnings a year

hence, after it is sold to outsiders. If the profit in the opening inventory is eliminated, earned surplus at acquisition (i.e., the parent's) must be decreased if this sort of situation is to be avoided. But I believe the idea of "closed" periods almost demands that the opening intercompany profit remain unchanged. Would not this be less repugnant than two profits on the same inventory?"

Perhaps the treatment given this item should have been more carefully explained. The point raised was considered at the time the solution was prepared and the treatment adopted was based upon the following line of reasoning:

(1) Prior to the date of acquisition a legitimate profit of \$4,500.00 was made by the Doe Company on the Blank Company and this profit is included in the Doe Company surplus at the date of acquisition.

(2) When the Doe Company acquired the stock of the Blank Company they (the Doe Company) constructively reacquired the goods previously sold to the Blank Company. What price did the Doe Company pay in the reacquisition of those goods? It was felt that the Doe Company would not attribute to those goods a value higher than their own cost.

(3) When the goods are finally sold to outsiders another profit of \$4,500.00 arises and gets into consolidated earned surplus, but this second \$4,500.00 results from the second sale of the goods. There seems to be little, if any, difference between this situation and the case of an individual who buys a share of stock for \$50.00 and sells it for \$100.00, then later buys it back for \$50.00 and sells it a second time for \$100.00. Certainly, the profit is \$100.00 and not \$50.00.

The treatment of this item in the solution has the further advantage of valuing the opening inventory of both companies on the same basis and at the same time presenting a more correct statement of consolidation surplus; but regardless of how it is handled there will be double counting. As it appears in the solution it gets into consolidated earned surplus twice; as it would appear, following the suggestion of the reader it would get into consolidated earned surplus for \$4,500 and into consolidation surplus for \$4,500.

Another reader has commented on the footnote appended to the balance sheet in the solution to problem 3 of Part II of the same examination. This footnote was keyed to two items in the balance sheet, plant-acquisition-adjustment account and extraordinary property losses, and was stated as follows:

It is assumed that the company is under the jurisdiction of the Federal Power Commission or a state which follows the N.A.R.U.C. classification of accounts and that the required permission to defer these losses and to write off the balance against future operations has been obtained.

The reader pointed out, and properly so, that this footnote should have applied only to the item of extraordinary property losses. His objections to attaching this note to the plant acquisition adjustment account are: (1) the account does not represent a loss and (2) neither is it necessary to obtain permission to spread this cost if the company is under the jurisdiction of the FPC or a state which follows the N.A.R.U.C. classification of accounts.

BOOK REVIEWS

Business Reports. Second edition. Alta G. Saunders and Chester R. Anderson. (New York: McGraw-Hill Book Company, Inc., 1940. Pp. xii, 468. \$3.50.)

Business Reports is not merely a new edition of the book that was published twelve years ago: it can fairly be described as a new volume that has taken advantage of the progress of the subject in the last decade. In treating such a subject the authors faced the difficulty that comes before every author of English texts designed for a special field of business writing. After all, the basic principles of expression are rather simple: it is the application that is complex, and this application involves a consideration of the exact purpose of every project. As a consequence, a book on business writing must continually attempt to keep two goals in mind, although the major aim must of necessity be expression rather than subject matter.

The authors have solved this dilemma as well as can be expected. In content their book covers well the obvious fields, such as: the problems of research, organization of data, and the preparation of a definite report. In addition, however, they have treated at considerable length topics such as *logical reasoning, mathematics of statistics, and personality of a successful investigator*. Such subjects undoubtedly are related to the practical problem of writing an effective business report, but an examination of the book is likely to give one the impression that the aim was to make the book *sufficient* for anyone undertaking to write a business report. Such sufficiency of content seems likely to make the volume somewhat too comprehensive for many average students, and many average students today are required in collegiate schools of business to attempt the writing of reports. It would almost seem that the book was written with an eye on the young research student rather than on the average business student for whom the writing of reports is only incidental. This objection, if objection it is, will be evident to anyone who examines with care Chapters 9 to 12 inclusive on the "Writing of the Elements of the Report." These chapters in themselves give a succinct and adequate exposition of report writing that is likely to be all that is required by most college classes dealing with the subject.

However, it is axiomatic that an instructor teaching the art of report writing should himself be well versed in the subject and ought to be able to choose from the book the topics which he thinks of value to his class. The authors have made easy such a choice by giving in *Appendix 3* a suggested outline for a report-writing course. This outline as they themselves suggest may prove too difficult and may easily be changed. The outline contains excellent suggestions for the use of the book and may well form the basis for an adequate course on the subject. The Chapter entitled *Preparation of Tables and Charts* is especially to be commended for the clarity of its statements and the wealth of illustrated material. The chapter on statistical tools raises the question hinted at above that the book undertakes to be a complete treatment of the preparation of business re-

ports and basic subjects that must be understood in order to prepare them. This chapter deals largely with the mathematics of statistics. It may be questioned if a person with a lack of mathematical training can benefit by this chapter and it would seem that a person with a sufficient acquaintance with college mathematics would not need it. This statement is made while admitting that the chapter is an excellent summary of some of the important mathematical problems arising in statistical investigation.

On the whole the basal text is clear and well to the point. A reviewer, however, is expected to find at least one fly in the ointment, so may be pardoned for pointing out a confused sentence which says that "Quotations are the carefully checked exact words of another author." Of course, a quotation is the exact words of an author, whether those words are carefully checked or not.

The reviewer has in his files probably every important modern American publication on report writing, and he feels justified in saying that this book is, on the whole, the best treatment to date of an intricate and important business subject.

ROY DAVIS

Boston University

Auditing. Revised Edition. William H. Bell and Ralph S. Johns. (New York: Prentice-Hall, Inc., 1941. Pp. xii, 409. \$3.50.)

This book is a revision of *Auditing* by William H. Bell published in 1924. The arrangement of the subject matter is the same as in the earlier edition. The chapter headings are identical and very little change has been made in the sub-topics. Here and there throughout the text paragraphs have been reworded and new material added to bring the work up to date. The authors recognize the "many important changes in the practice of auditing during the last few years," as well as "the present tendency to hold the auditor to a greater degree of responsibility for his work." They point out that, while these changes have not materially affected the principles of auditing, they have "made it necessary for the auditor to take a more serious view of his functions than ever before." The book is written primarily for students and practitioners of professional accountancy.

The authors assume that the reader is well grounded in accounting theory and have omitted discussion of the latter as far as possible. The principles of auditing presented are sound and practical, and are in agreement with those generally accepted by the profession. The text is clearly and concisely written with emphasis placed upon practical auditing procedures.

There are seventeen chapters in the book, the first six being devoted to definitions, preliminary arrangements, general procedure, and the steps in the verification of the original records. Chapters 7 to 13 inclusive describe in detail the procedure to be followed in auditing asset accounts, while Chapters 14 to 16 deal with the auditing of liability, capital, and operating accounts. The audit report and audit certificate are discussed in the

last chapter with emphasis on a recent ruling of the Securities and Exchange Commission affecting the latter.

The authors have done an excellent job in clearly setting forth the principles of auditing. The text is well planned, easy to read, and practical. The one thing noticeable, however, from the standpoint of the auditing instructor, is the total lack of problems and questions. Obviously, practice material must be provided from other sources if the book is used as a text in auditing classes.

CARL E. ALLEN

Lehigh University

Expenses and Profits of Limited Price Variety Chains in 1939. Elizabeth A. Burnham. (Boston: Harvard University Bureau of Business Research, 1940, Pp. vi, 29. \$1.00.)

This ninth annual survey of the operating ratios of limited price variety chains presents in a very usable form the results of 47 chains operating 5,695 stores. Outstanding average figures for those stores are: net cost of merchandise sold, 64.07%; gross, 35.93; expenses, 32.19; net profit, 3.74; net gain, 6.85. A comparison of the operating results of chains and department stores is, of course, possible by reference to a similar Harvard study prepared by Malcolm P. McNair, for 1939. In that study average figures are shown for department stores as follows: Merchandise cost 63.2%, Gross 36.8%, Expenses 36.4%, Net profit 0.4%, and Net gain 3.9%. The telling effect of the higher expense ratio of the department store is quite clearly suggested by such comparison.

Miss Burnham's study, however, reveals some quite serious concern regarding variety chain expense ratios. For example, it shows that dollar expense per store has been rising since 1932. Total dollar costs per store have increased,—particularly the dollar amounts for tenancy costs, depreciation, and advertising. On the other hand, sales and gross margin have risen substantially during recent years. Result, an improved profit showing.

Endangering the profit position of many individual stores, to some extent, is a change taking place in customer buying habits which is marked by a shift from shopping in congested districts to suburban shopping areas where total volume for individual stores may for some time be far below the higher profit levels. Furthermore, tenancy costs have been rising both in these suburban and metropolitan areas. This has been due to such factors as higher rental rates, amortization of extensive improvements to real estate, and to a very marked rise in taxes. The significance of the tenancy cost item is further exemplified by the fact that the higher profit of many of the goal (most profitable) firms resulted to a rather considerable degree from relatively low tenancy cost. Within each volume group in 1939, the most profitable chains tended to be those which had a rather high proportion of their stores in small cities where tenancy costs are relatively low.

This monograph sets forth in adequate tabular form numerous other differentiations as to gross margins, average sales per store, retail inventory, stock-sales

ratios, stock turn, etc. A special section of considerable interest is that devoted to the productivity of employees. Outstanding facts in this connection are:

- (1) An upward movement in percentage pay roll costs since 1929
- (2) A drop of 16% in sales volume from 1929 to 1939, accompanied by a decline of only 5% in pay roll
- (3) An increasingly marked variation from month to month in the dollar sales per week per employee
- (4) The tendency of sales per employee to vary directly with the size of the store

Detailed analysis bearing upon employee productivity is quite consistent with the current interest of chain store executives in instituting more thorough-going programs of personnel work.

HUBERT E. BICE

Syracuse University

Management Trading, Stock-Market Prices and Profits. Frank P. Smith. (New Haven: Yale University Press, 1941. Pp. xii, 146. \$2.50.)

This book is the result of a study in the field of stock trading by corporate insiders. The term corporate insider includes officers, directors, and large stockholders of the corporation in whose securities they are trading. The flood of controversy over the restrictions on this type of trading embodied in Section 16 of the Securities Exchange Act of 1934 calls for a clear and unbiased appraisal of the facts in the case. Professor Smith has made such an appraisal. He has served as Research Accountant with the Securities and Exchange Commission and has had a special interest in stock exchange practice.

There are three distinct although well integrated parts to this study: the theoretical, the historical, and the statistical. The first chapter deals with what the author terms the "economic arguments for insider-trading." These boil down to the contention that such trading tends to stabilize the market. He gives the principal assumptions on which such a contention must rest and points out that only one of them is susceptible of statistical analysis on the basis of currently available data: that "There are observable relationships between insider-tradings and subsequent price movements." (p. 18) It is with that assumption that the statistical part of the study deals.

Before undertaking his statistical analysis, he presents his historical material. This includes a discussion of the abuses of insider relationships uncovered in the hearings before the Senate Committee on Banking and Currency, and the investigations of the Securities and Exchange Commission. A full chapter is devoted to the legislative history of Section 16 of the Securities Exchange Act and the operation of the present provisions of that section are clearly presented.

The first point of attack in evaluating the assumption mentioned above is to determine the "Statistical importance of insider holdings." (Chap. IV) The author concludes that "Undoubtedly insiders as a group owned, at the end of 1935, a sufficiently large number of shares

to suggest the possibility of influencing the market by insider-trading." (p. 82) From here he proceeds to analyze the actual volume of such trading and follows this with a study of its timing in relation to the swings in the market. The tables presented show a considerable volume of insider-trading and the conclusion is reached that "insider-trading appears to have been less haphazard in relation to price movements than total exchange trading." (p. 122)

The reader of this book will find no determined exposition of a fixed point of view, but rather the carefully qualified statements of the scholar and research student. The conclusion is reached, however that an increased volume of insider-trading might tend to improve the stability of the market, although that is not to be construed as a plea for unrestricted trading of that type.

The data used in this study are, for the most part, derived from information collected by the SEC, and there is a very carefully reasoned exposition of all the statistical procedures involved, as well as a frank avowal of the inherent limitations connected with their use for the purposes of this study. The only exception to this was the chapter on Management Trading and Stock-Market Profits in which it might have been desirable to give a fuller description of the statistical procedure used.

In a study of this sort, there is bound to be a large mass of figures and the casual reader will benefit immensely from the fine sub-titling and the excellent summaries at the end of each chapter. There is also a general summary at the end of the book.

HENRY A. KRIEBEL

Lehigh University

Mathematics of Statistics. Parts I and II. John F. Kenney. (New York: D. Van Nostrand Company, Inc., 1939, pp. Part I, x, 248; Part II, ix, 202 \$4.00.)

The science of statistics has made steady progress over the years. Colleges and universities have expanded their offerings in this field and in many instances have made at least an introductory course a fixed requirement for students majoring in the exact and social sciences. As the field became more popular, more and more texts appeared which attempted to disguise the bitter pill of learning by sugar-coating it. Where the objective is to present merely a survey of the field, no great harm is done. The harm lies in so popularizing a subject as to create an illusion of real knowledge in the mind of the student. As a result there are thousands of young men and women who call themselves statisticians, but whose work is merely on the level of the statistical clerk. They are as far removed from comprehending the work of statistical research as a beginner student in algebra would be in understanding the Theory of Relativity.

Fundamentally, the science of statistics rests on a mathematical base. Simplification of presentation, therefore can only be obtained by largely eliminating the mathematical, and stressing the procedural, aspects of the subjects. That this makes the work of the student easier is true, but only in a limited sense. The tech-

niques he acquires are more or less easily learned, but they are also much more easily forgotten, since the logical base upon which they rest has been largely suppressed.

This book, then, is intended to furnish a solid foundation upon which to build for further study in this field. It furnishes the mathematical background that is indispensable to a proper understanding of the reasons underlying the statistical techniques. Part I supposedly is an elementary text, and the author claims, no doubt with the usual tongue in cheek business, that "a considerable part of the descriptive methodology . . . can be understood by those having relatively little knowledge of college mathematics." Nevertheless, "a certain degree of mathematical maturity . . . is presupposed." The book therefore should not be prescribed for the statistical dilettante, but should be treasured by the serious student.

Mathematicians and statisticians have for years developed a language and symbolism of their own. These must be mastered by the student so that they become second nature; for only in this way can his creative energies be released.

The topics covered in Part I are on the whole the usual ones for an elementary course. The treatment however is rigorously mathematical, and is not for those whose struggle with analytic geometry or calculus was a losing one. Two omissions must be noted. Time series are discussed only from the point of view of fitting different types of trend line curves to observed data; the subject of index numbers is completely suppressed. Concerning time series, the author expresses his disbelief in the traditional method of analyzing them into their components of trend, seasonal, cyclical, and random fluctuations. No alternative method, however, is suggested; and no comment is offered for the omission of index numbers. To compensate for these, the treatment of the subject of correlation is unusually complete, covering both linear and non-linear correlation.

Part II, recognizes the advances made in statistical theory in recent years. The author here presents what he calls some of the classical theory along with "some of the simpler concepts and techniques of the modern theory." Accordingly the author discusses probability theory, multiple and partial correlation, sampling theory and some problems of statistical inference. This last topic is by all odds the most interesting, and proves anew the progress made in the field of statistical research. The author is to be commended for having made the material available in textbook form, and it should become a valuable addition to the library of our budding statisticians.

THEODORE LANG

New York University

Accounting Principles and Procedure—Municipal Accounting. Charles H. Langer. (Chicago: Walton Publishing Company, 1941, pp. 148.)

The text entitled *Accounting Principles and Procedure—Municipal Accounting* is a comprehensive presentation replete with illustrations of this all-important topic.

The first lecture presents a discussion, supported with charts, of the financial organization of a city government. These organization charts classify expenditures by function, department, activity, and object of expenditure as now required by many municipalities under State laws. A study of the organization charts aids immeasurably to a clearer understanding of the budget and budgetary procedure which follows in the same lecture. Budget preparation and adoption is also discussed. Forms illustrating departmental and executive estimates and authorizations by legislative bodies is also very clearly presented. The execution and control of the budget, with forms illustrating the manner of keeping the accounts for appropriations, encumbrances, allotments, and the preparation of financial statements for use by municipal officials are fully discussed and illustrated.

A foreword to lectures that follow on the subject of the various funds of a municipality enables the reader and student to obtain a clearer understanding of account titles peculiar to governmental affairs, and suggests titles considered more appropriate than those now in common use.

The lectures which follow the foreword discuss in detail the funds of a typical municipality. Among these the general fund, special revenue, revolving, assessment, sinking fund, trust, and other funds, are clearly set forth and illustrated by journal entry and ledger accounts. Likewise the manner of handling and keeping accounts for the permanent properties and bonded indebtedness of a municipality is given ample consideration.

It is the opinion of the writer that a study of fund accounting as described and illustrated in this text should give the reader and student the essentials of this subject, and should enable him to obtain a clearer understanding of the varying situations and accounting procedures at present followed by most municipalities.

WILLIAM WIDER

New York University

The Output of Manufacturing Industries, 1899-1937.
Solomon Fabricant. (New York: National Bureau of Economic Research, 1941, Pp. xxiii, 685. \$4.50.)

This book will be useful as a comprehensive source of statistical data on the changes in manufacturing activity in the aggregate and in more than a dozen groups of industries and some 60-odd individual industries. The basic data are those of the United States Census and the record begins with the year 1899, because it was

then that reasonably accurate data on manufacturing production was first collected by the census. The original census data for the 38-year period ending with 1937 were critically analyzed by the author and were to some extent reclassified. The data were then transformed into index numbers, on the basis of which a great many percentage changes and other comparisons were made. The author was cognizant of limitations in the original data, which made the record far from perfect. The book provides a truly notable improvement of the record.

The author concentrated his attention on the long-term growth rather than the cyclical fluctuations. This was necessarily the case since the data were available only every 5 years from 1899 through 1919, and every 2 years thereafter. Moreover the measurements relate to physical output rather than to value of output.

A few of the findings of the study may be cited. Manufacturing production in the aggregate increased 276% from 1899 to 1937. This represents an average annual rate of increase for the entire 38 years of 3.5%, or, in other words, a doubling every 20 years. During the same period, the population rose by 73% so that the per capita production of manufactures increased by 120%. Turning from the aggregate to the groups of industries, sharp differences in the rates of change are to be noted. There were, for instance, very large increases from 1899 to 1937 in the physical output of transportation equipment, petroleum and coal products, chemical products, paper products, and products of the printing and publishing industries. In contrast, the physical output of forest products actually declined by 7% during the 38 years, while leather products rose by less than the rate of increase of population. The output of beverages and textile products also rose less than the increase of manufactures in the aggregate. Of the 61 individual industries for which adequate measurements were secured for the whole period, there were 11 which declined in output and 13 others which increased less rapidly than population grew. Special attention was given by the author to the period 1929-37. During those years manufacturing in the aggregate increased very slightly, only 3%. Nevertheless, the data on the separate industries showed that for about half of them output advanced during those years, in some instances by substantial amounts. Such evidence suggested to the author that the United States has not lost its capacity for industrial expansion as certain economists have claimed.

JOSEPH L. SNIDER

Harvard University

UNIVERSITY NOTES

HARRY D. KERRIGAN

UNIVERSITY OF CALIFORNIA AT LOS ANGELES

I. N. Frisbee will be on leave during the first semester of the year, 1941-1942.

The Los Angeles chapter of the California State Society of Certified Public Accountants held a dinner meeting on the campus, with senior students in accounting as guests.

UNIVERSITY OF ILLINOIS

The department of accountancy assisted with the Regional Conference of the N.A.C.A., during the two days, April 25-26.

Charles J. Gaa has accepted a position as assistant professor of accounting in Dartmouth College, beginning next September. R. H. Tappendorf will join the staff of Haskins & Sells, New York City. P. M. Green and D. M. Beights have exchanged positions for the current semester. Prof. Beights' regular position is with the University of Florida.

UNIVERSITY OF INDIANA

The annual meeting of the Indiana Association of Certified Public Accountants was conducted on the campus during May 16 and 17. S. A. Pressler is arranging the program for an Institute on Hospital Accounting, planned for June 9-14. Co-sponsors of the Institute are: the American Hospital Association, the Indiana Hospital Association, and the School of Business.

OHIO UNIVERSITY

Beta Psi, a local organization, held its annual forum on May 6. The speakers were: W. A. Commer, of the McBee Company; and C. W. Love, of the Federal Bureau of Internal Revenue.

LOUISIANA STATE UNIVERSITY

A group from the university participated in the meeting of the Southwestern Social Science Association at Dallas, Texas, on April 11 and 12: Daniel Borth, E. A. Saliers, Carl T. Devine, and C. Scheps. E. A. Saliers has been appointed a member of the natural business year committee of the Louisiana Society of Certified Public Accountants.

UNIVERSITY OF PENNSYLVANIA

C. H. Rankin has an article in the May, 1941, issue of the *Univ. of Pennsylvania Law Review*, entitled "Income Tax Aspects of a Corporation's Dealings in Its Own Shares." The June issue of the *Journal of Accountancy* will include an article

by Prof. Lockwood on the C.P.A. degree and the four-year requirement. Prof. R. B. Mitchell will address the 1941 convention of the Pennsylvania Gas Assn. on the subject of trends in financial statements and their effect upon analysis and interpretation.

An accounting forum was held on May 6 at Temple University. The meeting was held under the auspices of the colleges and universities in the Philadelphia area and the Pennsylvania Society of Certified Public Accountants. W. A. Paton addressed the evening meeting.

UNIVERSITY OF PITTSBURGH

"The Accounting Outlook" was the general theme of the Pittsburgh Accounting Conference, held on the campus, April 25, 1941. The conference was sponsored by the Pennsylvania Society of Certified Public Accountants and the universities, colleges, and private accounting schools of the Pittsburgh district. The Controllers Institute, Pittsburgh chapter, and the N. A. C. A. also cooperated. Three sessions were held as follows: Morning: the outlook in public accounting; afternoon: the outlook in private accounting; evening: the outlook as viewed by educators.

SYRACUSE UNIVERSITY

The board of regents of the state extended for five years the membership of George E. Bennett on the New York Board of C. P. A. Examiners.

A. AND M. COLLEGE OF TEXAS

A six-day institute on accounting, in which speakers addressed six different groups in an equal number of centers throughout Texas, was successfully completed during the period April 28 to May 3. The places in which meetings were arranged were: Houston, College Station, Austin, Waco, Dallas, and Fort Worth. The speakers were: Fred F. Alford, J. F. S. Arthur, C. H. Morris, J. A. Phillips, A. C. Upleger. The Texas Society of Certified Public Accountants organized and promoted the meetings with the cooperation of the different schools on whose campuses the gatherings occurred.

UNIVERSITY OF TEXAS

F. F. Tannery, who has been on leave, will teach in the second half of the summer session. His research work for the National Association of State Auditors and Comptrollers has taken him to Chicago where he is located for the present.

and the
all will
tvaan
ancial
s and

y 6 at
under
in the
ociety
on ad

general
rence,
confer
ociety
iversi-
pols of
titute,
coop-
Morm-
rnoon:
g: the

led for
ennett
ners.

which
n equal
succes-
o May
ranged
Waco,
were:
Mormon
ociety
ed and
tion of
e gath-

e, will
ession
tion of
en him
sent.